DOCUMENT RESUME

ED 227 338 CE 035 430

TITLE	The Challenge of Unemployment. A Report to Labour Ministers.
INSTITUTION	Organisation for Economic Cooperation and Development, Paris (France).
REPORT NO	ISBN-92-64-12332-6
PUB DATE	82
NOTE	163p.
AVAILABLE FROM	OECD Publications and Information Center, 1750 Pennsylvania Avenue, NW, Suite 1207, Washington, DC 20006-4582 ($17.00).
PUB TYPE	Information Analyses (070) -- Viewpoints (120)
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	Change Strategies; Demography; Economic Factors; Economics; Educational Needs; *Employment Opportunities; *Employment Patterns; Employment Programs; Employment Projections; Finance Reform; Job Training; *Labor Market; *Labor Needs; *Policy Formation; Position Papers; Public Policy; Social Change; Taxes; Trend Analysis; *Unemployment
IDENTIFIERS	*Organisation for Economic Cooperation Development

ABSTRACT

This report consists of an analysis of labor market conditions in Organisation for Economic Cooperation and Development (OECD) member countries and an exploration of possible future policy responses to the problems of unemployment. Covered in the labor market analysis are the following topics: the macro-economic environment (macro-economic trends and macro-economic costs of unemployment); changing labor market conditions (labor supply trends, changing sectoral employment patterns, and the structure of unemployment); rigidities and flexibility of the labor market (macro-economic evidence and micro-economic evidence); and labor market prospects (short-term prospects and medium-term prospects). The second half of the report examines strategies for increasing and redistributing the demand for labor (increasing the demand for labor through tax policy, employment subsidies, and job creation programs; an employment-oriented incomes policy; redistributing working time; and improved policy targeting) and for reconciling efficiency and equity in the labor market (vocational education and training, public employment services, labor market mobility, international migration, and social policies and labor market efficiency). Appended are a discussion of main orientations of OECD-member labor market policies during the 1970s, a bibliography, statistical data, and related technical information. (MN)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED227338

THE CHALLENGE OF UNEMPLOYMENT

A Report to Labour Ministers

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

OECD

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CE035430

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

The Organisation for Economic Co-operation and Development (OECD) was set up under a Convention signed in Paris on 14th December 1960, which provides that the OECD shall promote policies designed:

- to achieve the highest sustainable economic growth and employment and a rising standard of living in Member countries, while maintaining financial stability, and thus to contribute to the development of the world economy;
- to contribute to sound economic expansion in Member as well as non-member countries in the process of economic development;
- to contribute to the expansion of world trade on a multilateral, non-discriminatory basis in accordance with international obligations.

The Members of OECD are Australia, Austria, Belgium, Canada, Denmark, Finland, France, the Federal Republic of Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States.

Publié en français sous le titre

LE DÉFI
DU CHOMAGE

© OECD, 1982
Application for permission to reproduce or translate all or part of this publication should be made to:
Director of Information, OECD
2, rue André-Pascal, 75775 PARIS CEDEX 16, France.

OECD Ministers of Labour met on March 4th and 5th, 1982, to discuss the persistent and worsening unemployment situation in the OECD area and to explore appropriate policies for the future. The present report has been prepared by the Secretariat as an analytical background to this meeting of the Manpower and Social Affairs Committee at Ministerial level.

Also available

LABOUR SUPPLY, GROWTH CONSTRAINTS AND WORK SHARING (February 1982).
(81 82 01 1) ISBN 92-64-12279-6 68 pages £2.90 US$6.50 F29.00

YOUTH WITHOUT WORK. Three Countries Approach the Problem (September 1981)
(81 81 02 1) ISBN 92-64-12240-0 256 pages £6.80 US$15.00 F68.00

THE WELFARE STATE IN CRISIS (September 1981)
(81 81 01 1) ISBN 92-64-1292-7 274 pages £7.00 US$17.50 F70.00

YOUTH UNEMPLOYMENT. The causes and consequences (December 1980)
(81 80 05 1) ISBN 92-64-12137 136 pages £3.20 US$8.00 F32.00

DIRECT JOB CREATION IN THE PUBLIC SECTOR (April 1980)
(81 80 03 1) ISBN 92-64-12048-3 44 pages £2.00 US$4.50 F18.00

WOMEN AND EMPLOYMENT. Policies for Equal Opportunities (December 1980)
(81 80 04 1) ISBN 92-64-12136-6 170 pages £3.80 US$9.50 F38.00

DEMOGRAPHIC TRENDS 1950-1990 (January 1980)
(81 80 01 1) ISBN 92-64-12021-1 144 pages £3.80 US$8.50 F34.00

A MEDIUM TERM STRATEGY FOR EMPLOYMENT AND MANPOWER POLICIES (June 1978)
(81 78 01 1) ISBN 92-64-11797-0 130 pages £4.90 US$10.00 F40.00

Prices charged at the OECD Publications Office.

THE OECD CATALOGUE OF PUBLICATIONS and supplements will be sent free of charge on request addressed either to OECD Publications Office, 2, rue André-Pascal, 75775 PARIS CEDEX 16, or to the OECD Sales Agent in your country.

TABLE OF CONTENTS

INTRODUCTION 7

Part One

LABOUR MARKET ANALYSIS

Chapter I. THE MACRO-ECONOMIC ENVIRONMENT 13

1. Macro-Economic Trends 13
2. The Macro-Economic Costs of Unemployment 16

Chapter II. A QUANTITATIVE ANALYSIS OF CHANGING LABOUR MARKET CONDITIONS 21

1. Labour Supply Trends 21
   - *a)* Demographic Factors 21
   - *b)* Participation Rates: General Trends 22
   - *c)* Female Labour Force Participation 22
   - *d)* Migration 24
   - *e)* Total Labour Force Growth 25
   - *f)* Working Hours 26
2. Changing Sectoral Employment Patterns 27
3. The Structure of Unemployment 30
   - *a)* Unemployment Rates by Demographic Groups 30
   - *b)* Family Incidence of Unemployment 33
   - *c)* Duration of Unemployment and Labour Market Flows 36

Chapter III. RIGIDITIES AND FLEXIBILITY OF THE LABOUR MARKET 45

1. Macro-Economic Evidence 46
2. Micro-Economic Evidence 50
   - *a)* Demographic Shifts 51
   - *b)* Skill Shortages 51
   - *c)* Mobility 52
   - *d)* Minimum Wage 53
   - *e)* Unemployment Compensation 56
   - *f)* Job Security Provisions 60
   - *g)* Non-Wage Labour Costs 62
   - *h)* Enterprise Manpower Practices 63
   - *j)* Conclusions on the Micro-Economic Evidence 64

Chapter IV. LABOUR MARKET PROSPECTS 67

1. Short-Term Prospects 67
2. Medium-Term Prospects 70
   - *a)* Economic Growth and Unemployment 70
   - *b)* Labour Force Growth 71
   - *c)* Technological Change and Employment 75
   - *d)* Energy and Employment 77

Part Two

POLICY RESPONSES

Chapter V. INCREASING AND REDISTRIBUTING THE DEMAND FOR LABOUR . . . 83

1. Increasing the Demand for Labour . . . 84
   - *a)* Income Tax Cuts . . . 84
   - *b)* Payroll Tax Cuts . . . 85
   - *c)* Marginal Employment Subsidies . . . 86
   - *d)* Public Sector Job Creation Programmes . . . 88
   - *e)* The Measures Compared . . . 89
2. An Employment-Oriented Incomes Policy . . . 90
3. Redistributing Working Time . . . 91
4. Improved Policy Targeting . . . 93
   - *a)* Group Specific Targeting . . . 93
   - *b)* Regional and Sectoral Targeting . . . 95

Chapter VI. RECONCILING EFFICIENCY AND EQUITY IN THE LABOUR MARKET . 98

1. Vocational Education and Training . . . 99
2. Public Employment Service . . . 100
3. External and Internal Labour Market Mobility . . . 102
4. International Migration . . . 104
5. Social Policies and Labour Market Efficiency . . . 105
6. Conclusion on Equity and Efficiency . . . 108

Annex A. MAIN ORIENTATIONS OF LABOUR MARKET POLICIES DURING THE 1970s . . . 109

BIBLIOGRAPHY . . . 113

STATISTICAL ANNEX . . . 118

TECHNICAL ANNEX . . . 158

INTRODUCTION

In the 1970s the labour market situation in the OECD area as a whole worsened dramatically. The combined effects of reduced economic growth and increased labour supply pressures have led to a steep rise in unemployment (see Table 1). By 1980 the 1970 level of numbers unemployed had doubled; by the first half of 1982 it will have tripled. The number of unemployed is forecast to reach 28.5 millions (8.0 per cent of the OECD labour force) by the end of 1982. The year-on-year development of the total labour force has been steady and was not interrupted even during the severe recession period 1974/75. Employment growth, on the other hand, decelerated in 1974 and became negative in 1975. It has recovered subsequently but has not accelerated sufficiently to close the gap between people in the labour force and the number of jobs. Since 1980 employment growth has decelerated again in the wake of the second oil price shock and is not expected to pick up before the second half-year 1982.

The deterioration in the labour market during the 1970s was not equally pronounced in all OECD countries. After the sharp rise of unemployment following the first oil price shock, employment improved considerably in the United States, whereas it remained flat in Europe. Employment growth in the United States over the period 1975 to 1979 was more buoyant than in the 1960s, with productivity performance, however, falling below trend and a large number of new workers entering the labour market. In Europe, sluggish labour demand has now persisted over a period of eight years, entailing rather important consequences for the functioning of the labour market[1]. The comparative performance of European countries did not vary to a great extent. However, some countries, like Sweden, Norway and Austria, were more successful than others in stemming the rise of unemployment. The situation became particularly severe for a number of southern European and other emigration countries. The halt of migratory flows and the reduction of foreign worker remittances compounded the labour market and balance-of-payment problems of the traditional emigration countries. Japan managed to overcome the labour market consequences of the two oil price shocks remarkably well, relying mainly on manpower adjustments at the level of the individual enterprise.

Describing the outcome – a tripling of the number of unemployed over a decade – does not, of course, tell very much about why it happened or, in particular, why it was allowed to happen. In order to find any reasonably solid ground for answering the latter question it is necessary to understand not only why unemployment is so high but also why inflation is so high at the same time. It is the worsening of the trade-off between unemployment and inflation which has severely reduced the applicability of traditional demand management. Therefore, both from an analytical and policy-oriented point of view, it is necessary to understand the underlying causes for the coexistence of high rates of unemployment and high rates of inflation.

1. According to some authors the different performance of Europe and the United States was mainly due to prompter real wage adjustments in the United States following the first oil price rise (Sachs, 1979).

Table 1. **Key labour market indicators for the OECD area as a whole**

	1960-1970	1970-1980	1970-1973	1973-1975	1975-1979	1980[3]	1981[4]
	Average annual rates of growth						
Employment	1.0	1.0	1.1	0.0	1.4	0.4	0
Labour force	1.0	1.3	1.2	1.0	1.5	1.1	1
Working age population	1.1	1.1	1.2	1.2	1.1	1.0	1
	In per cent						
Participation rate[1]	68.4	68.2	68.0	68.0	68.5	69.1	69.1
Unemployment rate[2]	2.6	4.3	3.3	4.4	5.3	6.2	7¼
	In millions						
Unemployed[2]	7.6	14.3	10.3	14.1	17.9	21.5	25

1. Average rates for the period.
2. Average numbers for the period.
3. Provisional estimates.
4. Taken from the *OECD Economic Outlook*.

Sources: OECD *Labour Force Statistics* and *OECD Economic Outlook*, No. 30, December 1981.

Earlier analytical efforts have tried to explain the worsening of the trade-off by various structural factors: the changing composition of labour supply, squeezing of wage differentials, insufficient capital formation, labour-saving technological change, high costs of adjustment to changing international trade flows, etc. These kinds of issues were addressed in a follow-up Conference to the 1976 Meeting of the Manpower and Social Affairs Committee at Ministerial Level (OECD, 1977c and 1979a). Other analytical efforts have concentrated on explaining the worsening trade-off by the changing behaviour of economic agents, such as the emergence of inflationary expectations, real wage resistance in collective bargaining, increased claims for and less resistance to shifting various costs of health, education, child care, security, research, etc., from individual households and enterprises to the general public (OECD, 1977a).

Academic research has also focused on new macro-economic models and labour market theories which by providing new insight into the functioning of labour markets and the inflationary process attempt to explain the coexistence of inflation and unemployment. There has been a remarkable departure from earlier Keynesian approaches which explained involuntary unemployment by a deficit in aggregate demand and prescribed reflationary fiscal and monetary policies to remedy the underutilisation of resources. Inflationary wage and price responses to demand stimulation did not affect the process of reducing unemployment since during periods of recovery the rise in prices tended to exceed that of money wages and unit labour costs with the rise in real wages typically lagging behind that of productivity. However, with money illusion progressively disappearing and real after-tax income bargaining becoming increasingly the rule rather than the exception, there was a growing body of academic research which predicted that continued reflationary policies would lead to ever accelerating rates of inflation and would have increasingly less influence on the re-employment of real resources. Actual developments during the 1970s did not contradict this proposition.

There has also been a return to "classical" models which explain current unemployment by price-constrained (rather than demand-restrained) output or by "too high real wages". Some writers – in an effort to combine Keynesian and classical

theories – have developed disequilibrium theories which show that in particular empirical circumstances demand-deficient unemployment and "classical" unemployment can co-exist. One particular extreme version of the classical school assumes that all current unemployment is voluntary in that workers on the basis of "rational expectations" assume real (discounted) wages in future to be higher than in the present. They therefore substitute leisure from the future to the present. This results in a very elastic supply schedule and permanent market clearing even under condition of strong cyclical variations of labour demand and without major downward adjustments of wages. Another view of "voluntary" unemployment stresses the role of unemployment benefits and social security payments in raising reservation wages of the unemployed and prolonging job search. A less radical but still "equilibrium theory of unemployment" posits that workers and employers conclude implicit contracts which stipulate on the part of workers the acceptance of occasional and temporary lay-offs during periods of weak product demand, and on the part of employers a guarantee in exchange to refrain from wage cuts during periods of labour market slack. These equilibrium theories of unemployment – though their empirical testing is still weak – attempt to explain why no dramatic downward adjustments of wages (and prices) occurred during recession periods (Solow, 1980; Hall, 1980).

The present report can contribute only marginally to this discussion. Elucidating the likely causes of present unemployment and inflation could perhaps best be accomplished by adopting an explicitly general equilibrium (or rather disequilibrium) approach which would be far beyond the scope of the present report and, in fact, falls within the competence of other bodies of the Organisation, such as the Economic Policy Committee and its Working Parties. The borderlines of the issues addressed in this report are more or less traced by the competence of labour market authorities in OECD Member countries. This does not, however, dispense with the need to adopt a clear position on some of the fundamental macro-economic issues outlined above and to spell out the underlying assumptions about the nature of the unemployment problem which Ministers of Labour are called upon to address. This position can be summarised as follows.

There is little convincing evidence that voluntary unemployment is of any sizeable importance. Neither induced unemployment via higher unemployment benefits (as will be documented later), nor the hypothesis of permanent labour market equilibrium as postulated by the "rational expectations" and the "implicit contract" schools, has so far received much empirical support. Thus, present high levels of unemployment have to be viewed for any practical purposes as mainly involuntary.

It is difficult to be equally assertive about the relative amount of unemployment caused by high real wages (in relation to productivity performance), or high relative wages (in relation to the prices of other factors of production). But whatever the quantitative importance of these elements as underlying causes of present unemployment (some limited evidence will be presented later in connection with minimum wage floors and youth unemployment), labour market policies to contain real wage costs or to increase labour productivity will improve the conditions for future employment growth and thus reduce unemployment regardless of whether or not it was initially caused by rising real or relative wages.

The final major question regarding the underlying cause of present unemployment is: What part is due to insufficient demand and what to the build-up of inertia in the functioning of labour markets, thus leading to structural and/or frictional unemployment? The answer to this question is again of more importance to the macro-economist than to the micro-policy maker. The former has to know the borderline to which demand-deficient unemployment can be reduced without incurring new inflationary pressures. These will be triggered off the closer one moves to what has been termed the

"full-employment rate of unemployment". There is little doubt that this rate has tended to rise[2], not least because of prolonged demand slack leading to reduced investments in human and physical capital, increased risk aversion and the emergence of a secondary labour market. Moreover, an increasing segment of the labour force is becoming more and more disadvantaged and less employable because of long-duration or recurrent unemployment, or, worse, because of lack of opportunities to acquire work-experience and to mature in a work environment after having left the education system. In terms of policy, however, it would make little difference to replicate the academic debate on the exact size of the "full-employment rate of unemployment"[3]. One of the primary roles of labour market authorities is to reduce this rate or, more realistically, to prevent it under present conditions from constantly shifting upwards.

To assist policy formulation to this end the present report provides in Part One a broad-brush picture of salient macro and micro (labour market) developments during the past decade as well as present labour market characteristics. Chapter I deals with the macro-economic context, the severe external shocks experienced during the 1970s and the persistent constraints on macro-economic policies. This chapter ends with a discussion of the macro-economic costs of present levels of unemployment. The following chapter is more narrowly concerned with labour market trends emphasising in particular the secular rise of female labour force participation, the changing structure of unemployment and the growing importance of long-term unemployment. Chapter III reviews macro- and micro-economic evidence on the changing functioning of labour markets. It concludes by depicting a shift towards higher short-term labour market efficiency but argues that longer-term efficiency is in jeopardy. Part One is ended by a brief discussion of short-term and medium-term labour market prospects. In view of the overwhelming number of uncertainties only those aspects of the medium-term future are selected which can be discussed with some degree of confidence: the labour market impacts of demographic changes and, in particular, the future effect of the post-war baby boom on labour force growth; the introduction of micro-electronics; and rising real prices of energy.

Against this background Part Two then deals with appropriate policy responses: first those which consist of raising and changing the composition of the demand for labour. Given the earlier analysis of the group-specific incidence of unemployment on the one hand, and budgetary constraints resulting from the macro-economic policy stance on the other hand, particular emphasis is given to the appropriate targeting of job-stimulating measures. The final chapter responds to the earlier analysis of shifts in the functioning of labour markets and the continuing or growing need for structural change. Raising the efficiency of the labour market will continue to remain an extremely important contribution of labour market policies (and related social policies) to the achievement of non-inflationary growth. In some areas, such as vocational education and training or improvements in the public employment service, equity and efficiency objectives can be obtained simultaneously, but there may often be a trade-off between equity and efficiency in other policy areas such as job security provisions, international migration, and minimum wage floors. In these latter areas policies and institutional reforms have to be designed which achieve a reasonable balance between the two objectives.

2. In fact the outward shift of the Phillips curve which will be documented later is one manifestation of it.

3. Nor is it regarded as useful to replicate earlier efforts to decompose current rates of unemployment into a demand-deficient, a structural and a frictional component (OECD, 1978a). For the design of labour market policies it is more relevant to distinguish between short-duration and long-duration unemployment and to analyse the differential incidence of unemployment on various labour market groups. Nevertheless, the size of long-duration unemployment can be viewed to some extent as a proxy for structural unemployment.

Part One

LABOUR MARKET ANALYSIS

Chapter I

THE MACRO-ECONOMIC ENVIRONMENT

1. MACRO-ECONOMIC TRENDS

There are many reasons for the deterioration in economic performance since the early 1970s. Not all are fully understood. Perhaps the first major cause was an upsurge in the rate of OECD inflation, which resulted from a number of factors, including a generalised overheating of the OECD economy. Then came a series of sharp increases in some raw material prices. The acceleration of inflation, unprecedented in the post-Korean War period, was exacerbated by the quadrupling of oil prices in 1973/74.

The repercussions of this set of events have been numerous, interrelated, and still continue. Further, they have proved peculiarly intractable to solution by conventional economic policy. The two main problems have been:

- prolongation of the inflationary effects of the events of the early 1970s, in contrast, for example, to the Korean War episode, when inflation abated relatively quickly;
- difficult and at times painful adjustments necessitated by the sharp change in the relative prices of oil and oil-related products.

Over the eight years following the 1973/74 oil price rise, as the private sector and policy makers sought to overcome these basic problems, the OECD economy was, probably inevitably, condemned to a period of slow and rather fitful economic growth, which was insufficient in many countries to absorb the strongly-growing labour force, even though productivity growth slumped to historically low rates in most countries.

Table 2 shows the sharp changes in economic performance. Between 1970 and 1973, *real output* as measured by GDP of the OECD area as a whole increased strongly, at about 5 per cent per year, the same rate as the average for the 1960s. Indeed, 14 out of the 24 Member countries recorded a slightly better growth rate than their average for the 1960s (see Table A of the Statistical Annex). Then, between 1973 and 1975, there was virtually no growth in area GDP. During an intermittent recovery period (1975 to 1979) GDP increased fairly strongly at an annual rate of just over 4 per cent. In 1980, OECD countries once again plunged into recession, following the second oil shock of 1979.

The rate of *inflation* accelerated to unprecedented post-war levels in many countries during the decade. The average annual rate of the OECD area (measured by the consumer price index) reached 9.0 per cent in the 1970s compared with an average of 3.2 per cent in the 1960s. After an annual increase of 6 per cent between 1970 and 1973 the rate accelerated to over 10 per cent in 1974 and 1975. It fell slightly during the subsequent recovery period but, after the second oil shock which began in 1979, it rose again into double digits and still remains above 10 per cent.

Table 2. **Key economic indicators for the OECD area**[1]
Annual average growth rates in per cent

	1960-1970	1970-1980	1970-1973	1973-1975	1975-1979	1980[4]	1981[5]
Gross domestic product	5.0	3.3	5.1	0.1	4.1	1.2	1¼
Consumer prices	3.2	9.0	6.0	12.3	8.8	12.9	10¾
Productivity[2]	4.0	2.3	4.0	0.1	2.5	0.8	1¼
Real earnings[3]	3.8	2.1	4.0	1.2	1.5	0.4	1
Employment	1.0	1.0	1.1	0.0	1.4	0.4	0

1. Weighted averages for the OECD area as a whole, except for real earnings.
2. GDP per person in employment.
3. Wages and salaries per employee deflated by private consumption deflator, average for major seven countries.
4. 1980 data are provisional.
5. 1981 data are based on figures published in *OECD Economic Outlook*, No. 30, December 1981.

Sources: OECD *National Accounts, Labour Force Statistics*. Consumer price data are from *OECD Economic Outlook*. Real earnings data are Secretariat estimates.

In the 1970s the average annual growth rate of *productivity* (measured by the level of output per worker) in the OECD area as a whole was 2.3 per cent, compared with 4.0 per cent in the 1960s. After a strong increase of 4.0 per cent per year between 1970 and 1973, the rate of productivity growth dropped to virtually zero during the recession period 1973 to 1975. Subsequently, it gradually resumed its increase to reach 2.6 per cent per year in the period up to 1979 only to fall again to roughly 0.8 per cent in 1980. The sharp falls in productivity growth during the 1974/75 recession and in the recent period may be plausibly ascribed to cyclical reasons in that the slow growth of or fall in output led to labour hoarding. But the disappointing recovery of productivity growth after the 1974/75 recession, which is still not well understood, must be attributed to non-cyclical factors. Frequently cited causes are: slower capital formation due to an uncertain medium-term economic outlook; structural shifts in the labour force and employment; changes in the relative price of energy; increased expenditure on the environment, health and safety.

Between 1970 and 1980 *real earnings* (wages and salaries per employee deflated by the private consumption price index) increased at an average annual rate of 2.1 per cent for the area as a whole. This was markedly slower than in the 1960s and during the decade there were clear signs of a significant and prolonged deceleration: the rate of increase dropped from 4.0 per cent in 1970-1973 to 1.2 per cent in 1973-1975, and then to 1.5 per cent in 1975-1979. As can be seen from Table D of the Annex the trend in real earnings in the periods 1960 to 1970 and 1970 to 1973 corresponded by and large to the trend in productivity adjusted for terms of trade changes. This relationship was sharply disrupted in the recession period 1973-1975 when (with the noteworthy exception of the United States), real earnings rose much faster than productivity. Conversely, productivity growth surpassed the advance of real earnings in the subsequent period, 1975-1979.

There was probably relatively little that traditional macro-economic policy could have done to secure a much better overall economic performance than actually was achieved given, on the one hand, the disuptive effects of the two oil shocks on prices, real national income, capacity output and the balance of payments and, on the other hand, the lack of social consensus on the adjustments required and – particularly after the first oil shock – on the changes needed in the income formation process (price-fixing and wage-setting). The first oil shock hit the world economy virtually unprepared and most countries experienced for the first time in their history the simultaneity of a serious inflation and unemployment problem.

The rise in the relative price of oil set in train a number of processes of adaptation which were unavoidable, indeed vital in the longer-term interests of a satisfactory

economic performance, but which in the short-term were often inflationary. To some extent adaptation could be effected through regulation, such as that governing fuel-consumption standards of motor cars, but the main mechanism had to be higher relative prices for oil, other fuels, and thereby fuel-intensive products. As these higher prices worked their way through OECD economies there were various consequences, including:

- the rendering redundant of a number of fuel-intensive processes, and hence the associated capital stock; in some instances, too, labour force skills were made redundant;
- the stimulation of new investment in a number of areas of fuel production and fuel substitution, resulting in pressure on resources in some capital goods sectors and in some branches of the labour market;
- a reduction in the productive potential of most OECD economies, whether judged from the standpoint of the size of the economically-viable capital stock or the availability of economically-relevant labour skills; and, during the period of substitution of labour and/or capital for energy, a retardation of growth of labour and/or capital productivity.

At the same time, two further problems had to be faced:

i) the increased importance of structural rigidities in major product and labour markets, which prevented adjustment from taking place as fast as was required under the changed circumstances;

ii) the rapidly increased public debt and public sector share in national income which together with the increased sensitivity of inflationary expectations to expansionary policy moves, have made the pursuit of macro-economic policy increasingly difficult.

Faced with these problems, economic policy moved cautiously in most countries. The role of energy policy was to ensure that the changed relative prices of energy were transmitted properly into the economic system, so that correct signals for structural change were given. By and large this is being accomplished satisfactorily in most OECD countries, although not without exceptions and not fast enough to prevent the second major oil price rise in 1979/80. Positive adjustment policy, followed by all OECD countries, sought to encourage needed adjustments in the economic structure and to avoid actions which would undermine that aim. Aggregate demand policy, on both the fiscal and the monetary side, sought to achieve an acceptable balance between keeping output and employment up and keeping inflation down.

The results of these policies in the OECD region could be seen in the period 1975-1979. GDP, after three half-years of decline to mid-1975, had succeeded in growing modestly thereafter. The rise in unemployment had virtually been halted in the OECD area as a whole and in some of the larger countries had been reversed. Inflation had come down to about 9 per cent, from its 1974 peak of around 14 per cent. Most impressive of all, however, were the economies that had been achieved in the use of oil: compared with 1973, oil consumption per unit of OECD GDP was 10 per cent lower. It began to look as if the OECD economy might have turned the corner to a better economic performance. If that had proved to be the case, it would perhaps by now have been seen as a singular success. Unfortunately, before it had anything like fully recovered from the effects of this first oil price rise, the OECD economy was hit by another.

The causes of this oil price rise are numerous, and include the pick-up in OECD economic activity and hence oil demand, a period of rapid oil stock-building in OECD countries, insufficient progress in oil saving and fuel switching, and a decline in OPEC output, partly as a result of the Iran/Iraq War. The consequences, coming on top of an as-yet-incomplete adjustment to the previous rise, an inflation rate that was still

considered unacceptably high by the majority of OECD countries, and a post-war record rate of unemployment, have proved to be serious and hard to overcome.

In an act of perhaps unparalleled concertedness, OECD governments virtually all responded to the second oil price rise by adopting a restrictive stance of both fiscal and monetary policy. The response of monetary policy was virtually immediate, with interest rates rising throughout the OECD world from the Spring of 1980. Fiscal tightening, which depends upon the passage of budgets, took a little longer, but by 1981 for the OECD economy as a whole and for the majority of countries individually, the swing towards restriction was of the order of 1 per cent of GDP, a substantial figure. It was envisaged that this stance would in time be relaxed, but only when inflation had been significantly reduced.

The price of tight policy inevitably has to be a sluggish economic performance and worse unemployment. GDP growth tailed off in the first half of 1980, and fell in the second half. A gentle pick-up then seemed in prospect; but the maintenance of tight monetary policy for a period considerably longer than had at first seemed likely now indicates that basically weak conditions could prevail at least into mid-1982. The prospects for the labour market are correspondingly bleak, with employment in the OECD likely to grow at rates of 1 per cent or less through next year, resulting in an increase in unemployment to 28.5 million, 8 per cent of the labour force, by the end of 1982. Inflation, as measured by the private consumption deflator, currently just over 9 per cent, may fall to 8¼ per cent by the end of 1982. One bright spot seems to be the success achieved in reducing oil demand; since 1979, oil demand per unit of GDP has been reduced by a further 16.5 per cent, making a total reduction since 1973 of 25 per cent. Another achievement compared to the period following the first oil shock was the approximate maintenance of profit shares in most countries and the avoidance of a major slump in business investment.

2. THE MACRO-ECONOMIC COSTS OF UNEMPLOYMENT

Unemployment at a level of well over 25 million – about three times as high as during most of the sixties – necessarily means a substantial waste of human resources. There are various ways of looking at the macro-economic costs associated with unemployment. First of all, unemployment means an immediate loss of (measurable) value-added and output. If it persists for some time, unemployment may also entail future real income and output losses through lower investment in human capital (notably in the case of youth unemployment) and possibly also retarded implementation of technical progress and structural adjustment. Additional losses in terms of future growth rates and output levels could result from the macro-economic repercussions of financing the additional payments and services associated with large-scale unemployment. The problem is aggravated by the loss of tax revenue because of a reduced tax bare. Whichever method of financing is chosen, the consequences for welfare are likely to be adverse. First, increased taxation requires a transfer to the consumption of unemployed people from either the consumption of others or from funds that would otherwise have been used for savings and investment. The latter entails a welfare loss in terms of future output. Second, increased borrowing to provide liquid funds for benefit payments tends to lower bond prices and drive up interest rates, again with consequences for future output. Third, public expenditure may be diverted from other areas and, finally, financing by direct money creation has clear inflationary implications.

Measurement problems beset any attempt to estimate the welfare loss from unrealised output, to which should be added the psychic costs, stress, ill health, crime

and family disruption associated with unemployment. Empirical studies in a number of countries indicate that these elements are also important, if difficult to quantify, and should not be overlooked by policy makers[4]. However, setting them aside still leaves a number of formidable measurement problems. *First*, the total number of registered unemployed persons may not be a good measure of the actual waste of human resources. On the one hand, the waste is understated as discouraged labour and repatriated foreign workers are not included; on the other hand, rising unemployment favours the expansion of the "hidden" economy and of other activities which may partly compensate for the welfare loss from recorded employment. Furthermore it must be recognised that market economies cannot be operated at zero unemployment rates and that the "full-employment unemployment rate" has probably tended to rise over time. *Second*, there are similar assessment problems with respect to the real output (primary income) loss to be imputed to an unemployed person. It can be argued that in an economy which is being operated below its potential output level all incomes are depressed so that the value-added actually recorded per employed person may significantly understate the possible contribution to output of an average job seeker. On the other hand, it can also be argued that the unemployed portion of the labour force tends to have below-average qualifications and efficiency so that the imputable income loss per person out of work ought to be lower than the average income of those remaining employed. Furthermore, to the extent that unemployed persons undertake "hidden" activities (legal or illegal) for which they either receive an (undeclared) income or for which an income (because of a real welfare gain) should be imputed, the individual real income loss rather than the estimated gross income loss should be taken as a basis for calculating the net real income (welfare) loss for the nation as a whole.

On the above considerations it is clear that any attempt to quantify the macro-economic costs of unemployment must necessarily be highly tentative, raising serious measurement problems as well as questions of judgement. For a given period of time the amount of unrealised value-added as a consequence of unemployment over and above the "full-employment unemployment rate" may perhaps best be approximated by taking the actually recorded (i.e. depressed) average labour productivity times the difference between the level of (probably understated) registered unemployment and the hypothetical full-employment unemployment level. In the absence of a generally agreed measure of the latter rate, the average unemployment rate of the 1960s could be viewed as a reasonable medium-term target figure[5]. On this basis the "static" costs of unemployment in terms of foregone output would have amounted to $US 340 billion in 1981 for the OECD area as a whole, equivalent to the combined GDP of Canada and Denmark or almost half the GDP of France[6].

The macro-economic output losses due to unemployment are usually spread throughout the economy; the consequent real disposable income losses are concentrated

4. See Brenner, 1979; House of Commons, 1981; Schnapper, 1979; Ramsden and Smee, 1981.

5. On the one hand, the average over a ten-year period normally includes several years of cyclical downswing and is therefore higher than the unemployment recorded in high employment years. On the other hand, it is generally agreed that the sixties were in many respects particularly favourable years and that, due to changed demographic and institutional [illegible] as well as generally higher wealth and real income levels, the minimum unemployment rate consistent with sustainable pressure on the labour market has risen since the mid-1960s.

6. It should be noted that the above estimate of the macro-economic costs of unemployment does not include more dynamic costs typically caused by a prolonged period of underemployment, such as losses in potential growth entailed by low investment in physical assets and human capital, and recession-related lower rates of technological progress. It also excludes possible negative effects on investment, and hence future growth, as a result of the financial pressure on the government accounts, including the social security system, which has to be met either by increased taxation, lower public spending in other areas (notably investment), credit and capital market borrowing or monetary financing.

on individuals, primarily through the incidence and duration of unemployment, though these losses are modified in countries with progressive tax and highly developed social security systems[7]. Recognition of the costs imposed by the financing impact requires a focus on the increased pressure on public sector deficits – including deficits on social insurance schemes – arising from unemployment[8]. This is shown in a number of ways in the government accounts and includes public expenditure on job creation and training programmes for the unemployed as well as income transfers to and reduced tax receipts from the unemployed and their families. Income transfers include not only unemployment insurance and assistance benefits but also compensation for short-time working, mobility allowances, early retirement benefits, etc. Thus, the impact on total public expenditure of a rise in unemployment is much higher than the expenditure on unemployment compensation alone. However, only the latter can be readily documented. The mix of expenditure varies in different countries in the relative emphasis placed on income support and labour market services in favour of the unemployed, and between unemployment compensation and other transfers such as assistance to workers in hard-hit industries. It is thus important to bear in mind:

i) that the following data on unemployment compensation represent only part of the total impact on public sector expenditure induced by unemployment; and

ii) that the distribution of the total impact between these costs and other financial costs of unemployment varies between OECD Member countries.

Table O of the Statistical Annex shows cash transfers to unemployed workers for unemployment compensation, both insurance and assistance, for eighteen OECD Member countries for which data are available. In 1980, these cash payments as a percentage of GDP were, on average, more than twice as high as in 1970, 0.38 and 0.99 per cent respectively. Unemployment compensation as a per cent of total public expenditure rose from 1.03 in 1970 to 2.47 in 1980 and the share in total transfers to households increased from 4.40 per cent to 7.10 per cent over the same period[9].

There is no direct equi-proportional relationship between the average unemployment rate and unemployment benefit payments. The rate of entry of persons into unemployment, the changing average duration of completed spells of unemployment, changes in the composition of the insured labour force and of the unemployed according to previous earnings, the introduction of new eligibility criteria and benefit levels, all have an independent influence on total expenditure on unemployment compensation. Nevertheless, the aggregate unemployment rate exercises a strong influence and on average a rise in the rate of unemployment by one percentage point in a typical OECD country is associated with a rise of cash transfers by 0.2 - 0.3 per cent of GDP[10].

Unemployment affects the revenue side of public sector budgets in two ways. First, tax revenue and social security contributions are lost because of the income loss suffered

7. The main individual costs of unemployment are based on the economic hardship to the unemployed person and his or her family as modified by the tax and transfer systems and by the provision of services. In addition, there are two further factors: first, costs stemming from the stigma of becoming or remaining unemployed and ensuing psychological, health and social problems; and, second, changes in human capital which affect the level and possibly the profile of life cycle earnings. Information on the incidence and duration of unemployment by individuals and by families is shown in Chapter II and on income maintenance in Chapter III.

8. The nature of the problems is the same regardless of the legal status of unemployment insurance coverage and the fact that many governments keep separate accounts for their national unemployment insurance schemes.

9. Secretariat estimates based on national sources.

10. For method of estimation, see Mittelstädt (1975).

by those who become unemployed. Second, tax revenue is lost because of preferential tax treatment of unemployment compensation; indeed, in many Member countries unemployment benefits are completely exempt from taxation. Revenue losses are not a straight function of wage losses but are also affected by tax allowances, tax credits and tax schedules as well as previous earnings of the unemployed, and the duration of unemployment. The figures on foregone revenue in Table 3 are estimates based on the assumption of average earnings and average tax rates. No attempt has been made to estimate the loss of revenue due to reduced purchases of taxed items (VAT or sales tax revenue).

Table 3. **Composition of costs of unemployment to the public purse**
In per cent of total costs

	Unemployment benefit	Income tax loss	Social security contribution loss
Canada	56.6	32.7	10.7
France	43.2	10.9	45.9
Germany	56.5	18.1	25.3
Italy	9.6	35.8	54.6
Japan	48.3	21.5	30.2
United Kingdom	41.7	40.2	18.2
United States	25.2	45.6	29.2

Source: Secretariat estimates. For estimation methods see Note A of the Technical Annex.

Table 3 shows the percentage distribution of the cost of unemployment to the public purse in the seven major OECD countries. The figures on foregone income tax include estimated tax expenditure, i.e. tax exemptions on unemployment benefits for the United States and the United Kingdom not, however, for the other countries. The most striking result is that cash payments on unemployment compensation often represent less than half the total costs. The particularly high share of foregone payroll taxes (in the form of lost social security contributions) in France and Italy reflects the strong tax burden on the use of labour in these countries. In Canada and Germany the share of cash payments in total costs is the highest (56 per cent), in Italy it is the lowest (9.6 per cent) of all countries reviewed. However, substantial Italian payments on the Short-time Working Scheme are a partial substitute for unemployment compensation.

The impact of high unemployment on public sector revenues and expenditure has put an upward pressure on deficits which has aggravated the macro-economic difficulties outlined earlier in this chapter. The OECD economy, and most countries individually, are now probably reaching the nadir of the second period of adaptation to higher oil prices. The second shock, coming on top of an incomplete adjustment to the first, gave a significant boost to inflation and hence weakened the prospects for output and employment. It is against this background that policy had to be formulated, and it is against the background of the associated rise in unemployment in coming months that policy now has to be made. Room to expand the economy as a whole or to increase public expenditure on job creation and other policies to ameliorate unemployment is extremely limited. The constraints on policy imposed by the macro-economic environment underline the need to target policies accurately to those most in need and to provide policies in the short term which, with time, will also help to lift the constraints. In other words, policies which contribute to the improved allocation of resources and the capacity for future growth will ease both the extent of unemployment and the financing problems

19

associated with it. In this way labour market policies can feed back benefits in the wider macro-economic context. It is important to emphasise that the relationship between the labour market and the economy at large is two-way, and that the macro-economy, while determining short-term constraints on the nature and scope of policy, can itself be influenced by conditions in the labour market. To this end, policy needs to be highly focused. For this a clear understanding of the current characteristics and functioning of labour markets is essential. The following chapters set out the main features of OECD labour markets with the aim of promoting that understanding.

Chapter II

A QUANTITATIVE ANALYSIS OF CHANGING LABOUR MARKET CONDITIONS

The overall trends in OECD labour markets were referred to in the Introduction and Table 1. In the present chapter a more detailed analysis is provided, first on labour supply trends, second on sectoral employment patterns and finally on the structure of unemployment. Some subjects such as female labour force participation and long-duration unemployment have been dealt with in greater length, reflecting particular importance or concern for policy making.

1. LABOUR SUPPLY TRENDS

The size of the total labour force is the mathematical product of the working age population and the participation rate. The working age population, generally taken to be the age group 15 to 64 years, is in turn determined by past birth rates and modified by net migration. In some countries the impact of wartime deaths has also been substantial. If labour supply is measured (more correctly) in person-hours instead of number of persons, a further dimension which has to be taken into account is changes in individual working time.

a) Demographic factors

The main demographic trends which affected the labour force in the 1970s were as follows:

i) The working age population in the OECD area as a whole continued to increase at about the same pace (1.1 per cent per annum) as in the 1960s (Table E of the Statistical Annex) although the total population expanded more slowly than in the 1960s because of the general fall in birth rates. Working age populations increased very rapidly in North American countries, Australia and New Zealand. On the other hand, in Japan and in European countries (except Iceland and Turkey) they increased very slowly during the period under review.

ii) Strong increases in the number of young people in the age groups 15-19 and 20-24, reflecting the high birth rates of the 1950s and early 1960s (the "baby boom"), constitute the most striking aspect of changes in the 1970s. While present in the majority of OECD countries, the size and profile of the baby boom varied among them. These birth rate trends were reversed by the end of the 1970s in almost all Member countries.

iii) Changes in the pattern of family formation have led in some countries to a decreasing size of families and households and an increasing number of single-parent families.

b) Participation rates: general trends

The area participation rate (labour force as a proportion of the working age population), which had declined by 1.4 percentage point between 1960 and 1964, remained largely stable until 1976. From 1977 onwards it has risen slowly in spite of the weakness of overall demand.

Trends in participation rates differ greatly from country to country (Table F and Diagram A of the Statistical Annex). Among 13 countries where the participation rate rose between 1973 and 1980, Canada, Denmark, Portugal, Sweden and Norway registered a particularly substantial increase of more than 5 percentage points and the United States only slightly less. In Spain, Turkey and Switzerland, on the other hand, the rate declined by more than 6 percentage points. In countries where the overall participation rates increased strongly between 1973 and 1980, female participation rates rose substantially while male participation rates declined or increased only very slightly. On the other hand, in countries where the overall participation rates fell substantially over the same period, female participation rose slightly or fell while male participation rates declined strongly.

The marked decline of teenage labour force participation during the 1960s did not continue to the same extent during the 1970s and even less so in the second part of the decade. In some countries (for example Australia, Canada, Sweden, the United States) teenage labour force participation has in fact risen again. Young males (20-24) showed behaviour similar to teenagers while the participation rate of young females was characterised by a strong rise. Teenagers and young adults (even more so) appear to have a growing tendency to combine school or university enrolment with labour force participation in several OECD countries.

Activity rates of older males (those over 60) have continued to decrease in the 1970s but not more rapidly, even during the recession years, than previously. This is particularly true for males 65 and over. Here in fact the evidence suggests that in some countries the secular decline is flattening out (Canada, United States, Germany, Sweden) while in Australia it is continuing rapidly. In some countries, perhaps especially the United States, there are indications of the emergence of a "grey" labour force, that is a growing number of retired workers re-entering the labour market. On the other hand, in the male 60-to-64 age group significant reductions in labour force participation reflecting early retirement and/or labour force discouragement can be observed in several countries (France, Finland, Germany).

c) Female labour force participation

The most profound changes in labour market activity rates relate to women, and in particular married women. Their participation rates continued to grow during the recession years as strongly as previously (Sweden, Germany, France, Canada) or at an even higher rate (United States, Italy). Only in a few countries (such as Australia, Finland and the United Kingdom) was a noticeable slowdown observed. There may be a cyclical factor in female labour force participation particularly if, for instance, recession affects male-intensive industries more adversely, inducing additional family members, mainly female, to come on to the labour market. However, this hypothesis has not been adequately tested as yet. Furthermore, the basic trend appears to be longer term and structural.

The social, cultural and economic factors underlying the steady secular rise in female labour force participation are complex and not yet fully understood. Three factors which appear to be particularly relevant – although the degrees and direction of causation are not clear – are noted below:

- changing marital behaviour and family structures;
- increasing educational attainments and relative earnings for women;
- the growth of the tertiary sector.

Changing family structures are manifested in declining birth rates, a decline in marriage rates associated with a rise in age at marriage, and increasing divorce rates. These trends have been modified by an increase in de facto marriage.

For most countries there was a downturn in marriages per 1 000 population beginning around 1970, though some, such as Germany and Denmark, experienced these declines in the 1960s. The declines observed represent a significant trend, given that the rates are for all marriages and thus include remarriages of divorced persons, and that they occurred during a period when there were large numbers of persons of marriageable age due to the post-war fertility increases. The sharpest increases in the rate of divorce (divorces per 1 000 population) have been registered in the Northern and Western European countries, Canada and the United States. For most countries, however, the pre-1970s levels were not very high and increases were modest. In only a few countries did the rate of increase yield appreciably high levels of divorce by the end of the decade, notably the United Kingdom, Denmark, Finland, Sweden, Canada and the United States. Furthermore, the increase in the rate is less significant than it appears because it has not been standardised according to cohort size. It is much less marked when related to increases in the numbers in the relevant age groups – precisely the same demographic factor which makes declines in the legal marriage rate more significant than is apparent from the crude rate. The 1970s also witnessed an increase in age at marriage in several countries. This marked a reversal of a long-term trend towards declining age at marriage which in many cases began in the last century.

Accompanying these trends was a decline in average family size and some change in the assignation of roles within the family. There has also been a marked increase in single-parent families, most of which are headed by women, in many OECD countries. These women have the highest female participation rates observed. For instance, in the United States, 78 per cent of divorced women with children under the age of 18 were in the labour force in 1980. While the percentages of single-parent families are not high overall, this statistic is composed of an increasing flow multiplied by the average length of time spent as head of a single-parent family. Thus, the total numbers exposed to economic pressure arising from single-parent status over a given period may be much higher than indicated by the percentage at any one time (see Table 4).

Table 4. **Single-parent families in selected OECD countries as a percent of all families with children, 1970s**

Percentages

Germany	1975	13.0
Australia	1975	8.8
Belgium	1970	13.5
Canada	1976	14.0
Denmark	1970	12.0
United States[1]	1975	14.6
United Kingdom	1976	11.0

1. The numerator is single-parent families headed by women not all single-parent families.
Sources: Various national sources.

Increasing educational attainment appears to be another factor influencing rising female labour force participation. The strong expansion of education during the 1950s and 1960s affected both males and females, and, while the average educational attainment of women of working age continues to be lower than that of men, the differential is declining and has disappeared for young men and women in some countries (the United States and Sweden). Rising levels of education increase rewards for work and thus raise the opportunity costs of leisure and non-market work. At the same time, rising levels of education raise expectations and increase efforts to follow life long professional careers. On all these counts, better trained women have strong incentives to enter the labour market and to develop strong labour force attachment throughout their working life. However, women are still under-represented in terms of scientific and technical qualifications, which restricts their access to a number of male-dominated occupations. Women will continue to derive a higher return from education than men as long as these differentials persist. Furthermore, only new and additional qualifications will permit them to enter some male-dominated occupations which tend to be more highly paid. For these reasons, it is likely that the demand for higher education for women may not decline in spite of the diminishing overall returns to education observed for the economy at large.

The existence of earnings differentials between men and women is closely related to their segregation into different occupations. Earnings in traditional female occupations have always been low. This was partly the result of low qualifications, dependence on part-time jobs, and the high job turnover related to their role in absorbing seasonal and cyclical demand fluctuations. Women also tended to enter occupations which could be seen as extensions of their unpaid work in the home, such as food processing, nursing and textiles, where pay was low. At the same time women suffered from the discriminating attitudes of employers, male colleagues and trade unions on the grounds that their "natural" place was in the home and not in the labour market. Married women's wages were often asserted to be "pocket money". Therefore, a lower wage standard for women was deemed acceptable and was imposed even where (better paid) men did similar jobs to those of women. During the 1960s and early 1970s many governments passed legislation requiring equal pay for equal work. Although the application of this principle is still only partial, it has made some contribution towards narrowing the gap between the average earnings of men and women. The narrowing gap is, however, also related to the achievement of higher qualifications and the presence of more women in more highly-paid positions. Between 1968 and 1977 ten out of 19 OECD countries show substantial gains for women's relative earnings, four show moderate gains and five show little or no gain (OECD, 1980b, p. 32).

Growth in the tertiary sector is an important influence on the demand side of the labour market which helps to explain the increase in female participation. The industrial revolution had led to a massive shift of working men from agriculture to industry. But for many women this revolution – accompanied by large-scale rural-urban migration – implied a retreat from work in (agricultural) production to homework. This tendency was reversed during the two world wars and again in the period of higher economic growth in the post-war world when labour shortages in some sectors and, in some cases, the provision of more flexible working hours helped to draw women into the workforce. The tendency has been reinforced by the growth of the service sector which has relied predominantly upon female labour.

d) Migration

One particularly important and direct influence on labour force growth over and above domestic labour supply factors results from flows of *migrant* workers between Member countries and also from non-OECD into OECD countries. Some of the

immigration countries have been able to attenuate the recessionary downswing on their labour market by restricting further inflows of foreign workers. Conversely, the same policy has accentuated the labour market problems of the emigration countries in that their domestic labour force has been further swollen by reduced net outflows to other countries. However, a mitigating factor in some countries may be that the returning migrant workers, because they may be more mobile and flexible members of the labour force, are reducing the capacity for adjustment in the host countries by their departure while increasing it, through their acquired skills, at home.

Detailed flow statistics between OECD countries are lacking. However, data on the stocks of foreign workers in the labour force of certain Member countries have been gathered by means of SOPEMI (OECD, Annual Reports) and are shown in Table I of the Statistical Annex. In 1980 there were just over 5 million foreign workers in the European OECD countries. These stocks had decreased after 1974 with the exception of Belgium, the Netherlands and Sweden. During more recent years the labour force of foreign origin has tended to increase again, in particular through the arrival on the labour market of the wives of male foreign workers and their children. The foreign labour force is tending, to a variable extent according to country and ethnic group, to become younger, to include more females and to move into the tertiary sector. Younger foreign workers are projected to form increasing proportions of their age groups in the next few years. The foreign labour force is perhaps less concentrated geographically than were the first migrants, but it still constitutes a segmented market with higher rates of unemployment than nationals. This applies to all OECD countries except Switzerland. It also continues to be employed predominantly in jobs requiring a relatively low level of qualifications.

e) Total labour force growth

The striking changes in the composition of the labour force over the last two decades can be seen from changes in the share of prime-age males and the increase in the share of women in the same age group in the great majority of OECD countries (see Table 5).

Under the combined impact of trends in working age population and participation rates, the total labour force of the OECD area increased steadily during the 1970s. Total numbers rose by 13.3 per cent from 308 million in 1970 to 349 million in 1980. The increase was somewhat stronger during the 1970s (1.3 per cent per annum) than during the 1960s (1.0 per cent) (Table G of the Statistical Annex) and it was more pronounced (1.5 per cent) during the years of modest economic recovery, 1975-1979, than during the period preceding the first oil crisis (1.2 per cent per year in 1970-1973). However, the trend of total labour force growth in individual countries has varied considerably. In North America the total labour force increased rapidly between 1973 and 1980 whereas it increased only slowly over the same period in most European countries. In Germany and Switzerland it actually fell.

Looking at the OECD area as a whole, between 1973 and 1980 the total labour force increased by 9.4 per cent. The overwhelming part of this increase, 8.1 percentage point, was due to growth in the size of the working age population. Rising activity rates contributed 1.3 percentage points to the overall increase (Table H of the Statistical Annex). These contributions differed substantially between countries. In Austria, Germany, Greece, Ireland, the Netherlands, Spain, Switzerland and Turkey, the fall in the participation rate led to a slower growth of the labour force than that of the working age population. In some other countries, however, the rise in the participation rate increased the labour force substantially. In particular, the contribution of the participation rate to the total labour force outweighed that of working age population in Denmark, Italy, Norway and Sweden.

Table 5. **Share of males and females aged 25-54 in the total labour force in 1960 and 1980**

Percentages

	Males		Females	
	1960	1980	1960	1980
Australia	48.3	40.6	11.9	22.3
Austria	35.0	40.4	23.2	22.2
Belgium	47.8	43 7	14.8	18.3
Canada	51.0	37.8	13.5	24.1
Denmark	41.0	..	15.8	..
Finland	36.5	39.7	23.6	34.6
France	42.4	43.1	17.5	27.7
Germany (1979)	36.4	44.3	20.1	24.4
Greece	42.7	50.0	19.1	18.7
Iceland	44.1	39.6	13.2	13.7
Ireland	42.9	43.7	10.5	11.7
Italy	45.0	..	12.6	..
Japan	37.2	45.2	24.1	26.4
Luxembourg	49.2	53.1	13.8	12 3
Netherlands	49.5	49.4	8.9	17.7
New Zealand	48.3	42.7	11.7	15.8
Norway	47.8	..	10.4	..
Portugal	46.1	33.4	8.6	22.6
Spain	49.0	44.2	8.7	14.9
Sweden	39.7	36.3	15.2	30.4
Switzerland	39.5	..	13.6	..
Turkey	33.8	..	22.7	..
United Kingdom	42.9	38.2	18.0	24.7
United States	44.2	36.5	20.4	25.4
Yugoslavia	40.2	..	19.7	..

Sources: 1960 data: *Demographic Trends 1950-1990*, OECD, Paris, 1979 (data for Canada, Japan, United Kingdom have been revised).
1980 data: compiled from historical national sources, except in the case of Austria, Belgium, Greece, Ireland, Luxembourg and New Zealand where the source is again *Demographic Trends 1950-1990*.

f) Working hours

Working hours have increasingly become a strategic variable in balancing both long-term and short-term labour supply and demand trends. Over the long term it has become apparent that standard working hours per individual are no longer the exclusive pattern, especially for newcomers to the labour market. Reductions of working hours during periods of high unemployment have also become a major issue in collective bargaining. Over the short term, fluctuations in product demand are increasingly absorbed by fluctuations in working hours (overtime, shift work, short-time working, temporary lay-offs, partial unemployment schemes, etc.). For the appropriate measurement of total labour input (and indirectly labour productivity) it has become highly desirable, therefore, to have reliable statistical data on working time and in particular annual working hours. Unfortunately this is not available in most Member countries. Serious statistical shortcomings at national level are compounded at international level when comparisons of national data and trends are undertaken. The following observations for ten Member countries for which some data are available have to be interpreted, therefore, with extreme caution.

Table J of the Statistical Annex suggests that all ten countries have experienced a relatively strong decrease in annual working hours over the last two decades (roughly

–0.7 per cent per annum on average)[11]. This annual rate has changed during the 1970s from an average of about –1.0 per cent in 1970-1973 and 1973-1976, to only about –0.8 per cent during the 1976-1978 period, when some countries (Canada, Finland, Italy, Japan) experienced a slight increase of annual hours worked per person. This reversal of the steady downward trend in a period of both strong labour force growth and high levels of unemployment has to be underlined. The most recent evidence is rather uncertain but appears to indicate that the general decline in working hours has resumed.

Since 1970 *part-time jobs* have increased between two to four times as rapidly as total employment (except in the United States where the strong expansion of part-time jobs occurred prior to 1970). Statistical data on part-time work are difficult to interpret on an internationally comparative basis because of varying definitions. Nevertheless, it appears that 80 to 95 per cent of these jobs are filled by women (in 1977 between 20 to 50 per cent of all females in the labour force were working part-time) and more than three out of four part-time jobs are to be found in the service sector. Most of these jobs were created between 1970-1973 (except in the United States). In the following years the share of part-time jobs has levelled off in many countries apart from Denmark and Sweden. More recently a new increase seems to have occurred in several countries. The proportion of jobs which are part-time varies between OECD countries from less than 10 per cent (Finland, Ireland, Italy) to over 40 per cent (Denmark, Norway, Sweden, United Kingdom) and is usually related to the labour force participation of women.

To a large extent this phenomenon has been associated with the need for new labour supplies which also triggered off large inter-European migratory flows. In order to attract women with family responsibilities into the labour force new work arrangements – usually part-time jobs – tended to be offered. However, according to some observers the hourly rate of pay was frequently lower than that corresponding to the same type of full-time work (OECD, 1980b) and there was little or no job protection. Employers could thus meet the need for new labour supplies and at the same time undercut the normal working conditions associated with full-time work. This would also help to explain why the strong increase in part-time work was not limited to the labour shortage countries. A further contributing factor was the relative ease with which many newly emerging service jobs could be organised on a part-time basis, in contrast to traditional jobs in manufacturing.

2. CHANGING SECTORAL EMPLOYMENT PATTERNS

Rates of employment growth differed considerably among economic sectors. In the 1970s employment in the primary sector continued to decline. Between 1970 and 1979 it declined from 40.4 million to 33.2 million in the OECD area as a whole. Employment in the secondary sector continued to increase until 1974. Then it fell sharply by 4.4 million in 1975, but resumed its increase thereafter. Nevertheless, in 1979 the level of employment in the secondary sector exceeded only slightly that of 1970.

The only major sector which continuously expanded even during the 1973-1975 period was the tertiary sector. The absolute number of tertiary workers rose from

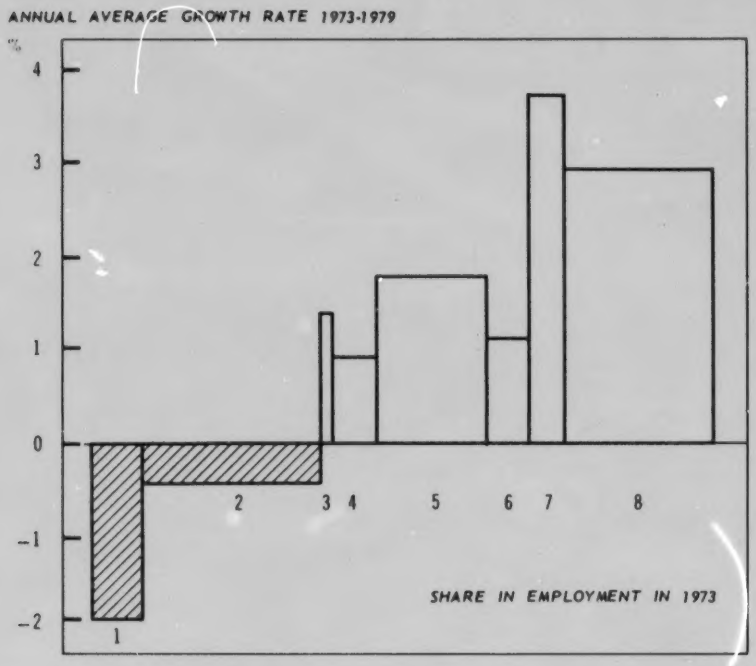
11. It is interesting to note that in France the reduction of individual working hours was much stronger than the reduction of hourly capacity utilisation. In fact, between 1959 and 1977 average weekly working time has been reduced by 4.2 hours whereas the reduction amounted to only 1.3 hours for capacity utilisation. The difference was due to the extension of shift-work from 20 per cent of blue-collar workers in 1959 to 30 per cent in 1977.

143.2 million in 1970 to 173.7 million in 1979, at an annual rate of 2.5 per cent. According to Diagram 1, which shows sectoral employment growth in 13 OECD countries between 1973 and 1979, more than 90 per cent of employment growth in the total tertiary industry was due to employment growth in community, social, and personal services, as well as trade and restaurants and hotels. Some of the phenomenon may be explained by a shift from services provided for own use by manufacturing units to the separate provision of the same services. However, after taking this into account, there remains a well-documented shift of labour demand towards the tertiary sector

Diagram 1

EMPLOYMENT GROWTH BY SECTOR[1]

(13 Member countries combined)[2]

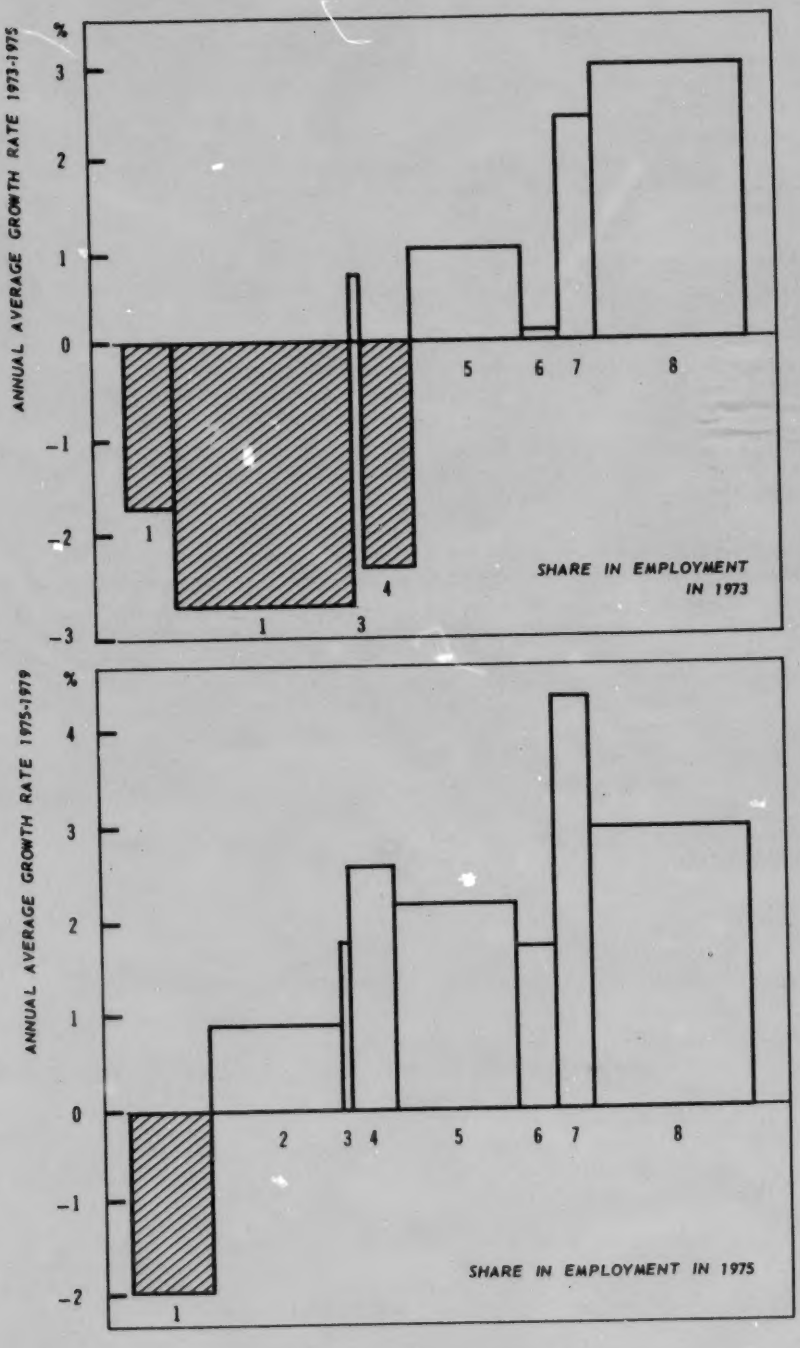


1. The numbers shown in the graphs correspond to industries as follows:
   1: Agriculture, hunting, forestry and fishing
   2: Mining, quarrying and manufacturing
   3: Electricity, gas and water
   4: Construction
   5: Wholesale and retail trade, and restaurants and hotels
   6: Transport, storage and communication
   7: Financing, insurance, real estate and business services
   8: Community, social and personal services

2. These 13 countries are Belgium, Canada, Denmark, France, Germany, Iceland, Japan, the Netherlands, New Zealand, Norway, Portugal, Sweden and the United States.

Source: OECD, *Labour Force Statistics.*

Diagram 1 (cont'd)



29

which has occurred for a variety of reasons such as the following:

i) the measured rate of productivity growth in the service sector has been small relative to the industry sector;

ii) demand for services, above all personal services, is highly income-elastic;

iii) higher female participation in the labour market which responded to the demand for services also increased it, particularly for services of the type provided within the household (childcare, laundry, restaurants, pre-school education, etc.);

iv) rapid increases in public expenditure on education, medical care and related social services have resulted in a strong growth of public employment.

3. THE STRUCTURE OF UNEMPLOYMENT

Even though the stock of the unemployed has tended to increase over time, it is important to remember that the unemployed are not a static population patiently waiting in a queue for a suitable job offer to appear. Inflows into and outflows from unemployment are extremely rapid. However, as the labour market has become more depressed in recent years, the rate of turnover of the stock of unemployed has declined and the average length of a spell on the register has increased. The declining turnover of unemployment does not affect all groups in the labour market equally. The apparently most productive and easily employable workers will continue to remain only for short periods on the register whereas other groups, having the opposite characteristics, will remain there longer and longer. As a result there will be a gradual filtering out of the preferred workers and a corresponding build-up of hard-core unemployment hitting groups with low re-employment chances. For policy purposes, therefore, it is important to know the group incidence of unemployment, both of overall unemployment and long-duration unemployment, and to analyse the group-specific performance over time.

Apart from group-specific unemployment rates the regional dispersion of unemployment rates is often an important indicator for policy, signalling structural and mismatch unemployment. Regional rates will not, however, be analysed here because the problems are nationally well known and because of the lack of comparable regional dispersion data between different countries. The main emphasis will be on demographic groups and on family-based unemployment differentials.

a) Unemployment rates by demographic groups

Tables 6 and 7 provide information on age and sex specific unemployment rates for ten OECD countries in 1973 and 1980. These data are complemented in Diagram C of the Statistical Annex by graphed time series of these rates. Several significant patterns can be distinguished:

i) Unemployment rates decline with age[12]. In some Member countries there appears to be a U-shaped relationship between age and unemployment rates, especially among males. Unemployment rates first decline steadily with age and are lowest among prime-age workers before rising again in old age. There is less evidence of such a U-shaped pattern among females where the

12. Among young people this negative correlation of unemployment rates with age is especially marked. Unemployment rates among teenagers are consistently higher than unemployment rates among young adults. Indeed, even within these two five-year age groups, the negative association between age and unemployment rates is very obvious. For further details see OECD (1980c).

Table 6. **The age composition of male unemployment rates in selected OECD countries, 1973 and 1980**

		Unemployment rate by broad age groups			
		— 20	20-24	25-54	55 +
Australia	1973	4.6	2.1	0.8	0.8
	1980	14.8	8.5	3.2	2.7
Canada	1973	12.5	8.1	3.3	3.9
	1980	17.1	11.4	4.9	3.6
Finland	1973	7.3	3.3	1.7	2.2[4]
	1980	16.2	6.8	3.6	4.9[4]
France[5]	1973	4.1	2.5	1.0	2.1
	1980	14.6	7.8	2.8	4.1
Germany	1973	0.7	0.6	0.5	1.3
	1980	3.3	3.0	2.0[6]	
Italy[7]	1973	15.8	10.3	1.5[3]	0.5[3]
	1980	25.0	18.0	1.8[3]	2.9[3]
Japan	1973	3.8	2.2	1.0	1.8
	1980	5.5	3.6	1.5	3.2
Sweden	1973	5.8	4.2	1.6	2.3[4]
	1980	6.5	3.5	1.1	1.4[4]
United Kingdom[1]	1973	3.3	3.1	2.2	4.5
	1980	10.5	10.2	5.2	8.3
United States	1973	12.8	6.4	2.5	2.5
	1980	17.3	11.5	5.0	3.3

1. School-leavers are excluded (July data).
2. 25-59-year-olds.
3. 60 +.
4. 55-74-year-olds.
5. On ILO definitions.
6. 25 and over (estimates).
7. The data for Italy for 1973 and 1980 are not comparable owing to a break in the series.

Source: National statistics.

normal pattern appears to be a continuous fall in unemployment rates with age.

ii) In most countries there appears to be a clear upward trend in the entire age-sex structure of unemployment rates since the early 1970s. This is especially the case in Australia, Finland, Germany, Italy, Japan and the United States, but is non-existent in Sweden.

iii) In most countries there are significant annual fluctuations in the group-specific rates around the trend values.

iv) Generally female unemployment rates are higher than male rates within similar age groups. This is the observed pattern in Australia, France, Germany, Italy and the United States, whereas male rates tend to exceed female rates in Finland, Japan and the United Kingdom. However, registration data on female unemployment in the United Kingdom need careful interpretation because of the low propensity of females to register when unemployed.

Table 7. The age composition of female unemployment rates in selected OECD countries, 1973 and 1980

		Unemployment rates by broad age groups			
		— 20	20-24	25-54	55 +
Australia	1973	4.9	2.5	2.4	1.4
	1980	18.9	9.1	4.7	1.8
Canada	1973	11.6	7.2	5.6	4.3
	1980	15.3	10.8	6.8	4.5
Finland	1973	7.1	3.6	1.6	1.6[a]
	1980	17.1	7.5	3.5	5.4[a]
France[a]	1973	8.0	4.5	2.4	2.2
	1980	39.0	17.1	6.3	5.4
Germany	1973	1.4	1.3	1.1	1.0
	1980	6.5	5.4	4.1[a]	
Italy[1]	1973	15.7	10.7	2.0[a]	0.0[a]
	1980	39.2	24.8	6.9[a]	12.2[a]
Japan	1973	1.8	2.3	1.0	1.0
	1980	2.7	3.4	1.9	1.1
Sweden	1973	8.0	4.7	2.1	2.3[a]
	1980	8.8	3.9	1.6	1.5[a]
United Kingdom[1]	1973	2.6	1.5	0.6	0.6
	1980	10.2	9.1	3.2	2.2
United States	1973	15.2	8.4	4.4	2.8
	1980	17.1	10.2	5.9	3.2

Notes: Same as Table 6.
Source: National statistics.

The most striking observation is the systematic over-representation of young people in the unemployment population. Table M of the Statistical Annex shows youth adult differentials for 18 OECD countries. Youth unemployment rates are typically double or triple those of adults. Italy and Norway, where youth rates are six times those of adults, have the most extreme differentials. Trends in the ratio are diverse; the ratio declined in six countries since 1976 and increased in the others. The overall differential rate for the countries shown combined has risen marginally from 3.1 in 1976 to 3.3 in 1979.

In an attempt to quantify the influence of some of the main factors determinining the structure of unemployment rates over time, a simple econometric model has been fitted to the time series data shown in Chart C of the Statistical Annex. The basic hypothesis underlying the model is that shifts over time in the structure of unemployment rates are determined by a set of cyclical, trend and demographic factors[13]. The inclusion of a cyclical variable needs no justification. The trend variable is included to capture the effects of slowly changing factors which shift the composition of unemployment over time independently of cyclical and demographic changes. In recent

13. For a more detailed outline of the model see Note B of the Technical Annex.

work on youth unemployment the Secretariat has established that in many of the countries there was a significant tendency for unemployment rates among young people of both sexes to increase relative to adult rates purely as a function of time (OECD, 1980c). Finally, the demographic variable is included to control for the changing age composition of the population over the last two decades. The model accords no explicit role to changes in relative wages; however, part of the relative wage effect may be captured by the demographic variable (for further details see OECD, 1980c, pp. 46-47)[14]. The main explanation for this unfortunately significant omission is the lack of reliable comparative data on wages by age and sex on a time series basis. Some attempts were made to include the effects of selective manpower and employment measures adopted in recent years in the countries under review.

The main results from the regression analysis are as follows:

i) The single most significant factor is the aggregate demand effect. Almost without exception the estimated cyclical elasticities are lower for females than for males in all age groups.

ii) Demographic shifts – which are proxied by the proportion of population of a given age and sex in the total population of working age – have increased unemployment rates only among young people. Even for the under 25s the magnitude and significance of this factor varies across the sample since for several countries the variable has no explanatory power.

iii) Significant trend effects also seem to be evident only for young people.

iv) Some limited evidence was found to support the hypothesis of a special programmes effect on youth unemployment rates over the past few years in Germany, the United Kingdom and the United States. In every case the main impact was concentrated among teenagers.

b) Family incidence of unemployment

Another dimension of unemployment is the way it affects people inside households and families. A large majority of people live in families and, to an important extent, decisions on whether or not to participate in the labour force are made on a family basis. The failure of any one family member to find employment has repercussions on the well-being of the family as a whole. Conversely, if one family member loses employment this may be compensated, to a greater or lesser extent, by the entry of another family member into employment.

The family incidence of unemployment must be viewed against the background of two important secular trends. The first is the rise in the number of families with two or more members in the labour force. This has of course occurred in parallel with the general rise in female labour force participation. The second is the increase in the divorce rates and numbers of single-parent families noted earlier. It may be observed that divorced persons show the highest levels of labour force participation and the same is true of unemployment rates.

Data on marital status alone fall short of the type of data needed for an analysis of the family incidence of unemployment. Such data are available for a relatively small number of Member countries. They are not produced according to a consistent standard so that, for example, the definitions of family (or household) differ while in some cases the classification employed is based on the concept of "head of household" while in others it is not. Nevertheless, the fact that certain key features emerge clearly for all countries for which the data are available (Australia, Canada, Germany, the United

14. See also in Chapter III, Section 2(d) the impact of minimum wage legislation on youth employment and unemployment.

33

Kingdom and the United States) makes it permissible to talk about the family status categories in general terms without being unduly restricted by the differences between the terminology used in different countries. It also means that it is possible to illustrate these key features by means of data from any one of the countries mentioned above.

Table 8. Unemployed persons by family status in Australia[1] and Canada[2]
Percentages

	Specific unemployment rate	Proportion of total unemployed
	Australia	
Family members	4.4	81.3
Husbands	2.3	16.5
Wives	4.7	17.0
Not married men, heads of family	6.1	1.2
Not married women, heads of family	11.0	4.0
Full time students (15-20 years of age)	18.7	6.1
Other children of family head	12.3	33.7
Other relatives	10.9	2.7
Non-family members	8.4	18.7
Total	5.9	100.0
	Canada	
Family members	7.5	87.5
Male head of unit	3.5	18.7
Wife of male head of unit	8.6	27.0
Female head of unit	10.0	5.2
Husband of female head of unit	6.3	0.8
Single children	14.5	31.6
Other relatives	11.6	4.2
Non-family members	7.2	12.5
Total	7.5	100.0

1. July 1979. Within the civilian non-institutional population aged 15 years and over. *Source: Labour Force Status and Characteristics of Families*, Australian Bureau of Statistics, July 1979.
2. *Source: The Labour Force*, Statistics Canada, September 1981.

Data on unemployment by family status are shown in Table 8 for Australia and Canada. It will be seen that Canada uses the concept of head of household (or "head of unit") while Australia does not. In Canada the lowest unemployment rate is associated with male "heads of unit" while, correspondingly, in Australia the lowest rate is seen for husbands in households containing a married couple. These results are consistent with those observed for other countries. It also seems that the types of persons most affected by unemployment are, in general terms:

- unmarried women, heads of families
- single children living in families
- other relatives living in families.

In addition, unemployment seems to affect those people who live in families less severely than those who do not. It will also be noted that the importance of these categories varies widely in terms of the proportion of the unemployed that they represent. Unmarried women heads of families form a relatively small proportion of the unemployed, while children living in families are a rather higher proportion.

Against the background of the rise in the number of families with two or more persons in the labour force it is interesting to ask whether the problems of unemployment are mitigated to a greater or lesser extent by the employment of another family member. In this regard it is natural to begin by studying the employment status of husbands and wives together. It appears that wives who participate in the labour market are much more often unemployed if their husbands are unemployed than if their husbands are employed (Table 9). Moving beyond the husband and wife alone to consider the family as a whole, Table 10 indicates the number of unemployed, by family status, living in families where nobody is employed. It can again be seen that families where the husband is unemployed quite often contain nobody who is employed (45 per cent of the cases considered). The high unemployment rates for relatives in families are counterbalanced by the high proportion of cases in which someone else in the family is employed. This is not true for females maintaining families on their own. They have the highest "family unemployment rate" (defined as the ratio of the numbers of unemployed persons falling into a given category, living in families where nobody is employed, divided by the total number of such persons in the labour force).

Table 9. **Employment status of wives in married couples according to the employment status of their husbands in the United States, March 1980**

Percentages

	Employment status of wives				Wives' unemployment rate (2) : [(1) + (2)]
	Employed (1)	Unemployed (2)	Not in labour force (3)	Total	
Couples with husbands employed	54.5	2.6	42.9	100.0	4.6
Couples with husbands unemployed	47.6	8.9	43.5	100.0	15.8

Source: United States Current Population Survey, March 1980.

Table 10. **Unemployed persons living in families where nobody is employed, by family status, United States, March 1980**

Percentages

	Unemployment rate (1)	Proportion living in families with no one employed (2)	"Family" unemployment rate[1] (3)
Family status			
Husbands	3.8	45.4	1.7
Wives	5.6	18.6	1.0
Relatives in married couple families	13.5	9.4	1.3
Females maintaining families	10.1	82.6	8.3
Males maintaining families	6.7	71.4	4.8
Relatives in families maintained by males or females	19.2	27.8	5.3
Total persons in families	7.1	31.7	2.2

1. Defined as the number of unemployed persons, falling into a given category, in families where no one is employed divided by the total number of such persons in the labour force. Column 3 is thus the product of columns (1) and (2).

Source: United States Current Population Survey, March 1980.

35

Unemployment may also be viewed on a family basis. One method is to look at the total number of families affected by unemployment disaggregated by the number of employed people, if any, that they contain. Data from Canada indicate that, in November 1980, 614 000 families (roughly 10 per cent of all Canadian families) were affected by unemployment. Only 25 per cent of these families were without anyone employed but a high proportion (70 per cent) of these families contained children.

The overall picture is a complex one. One striking feature is the high rate of unemployment for single heads of families, seen against the background trends in family structure. Another is the apparent concentration of unemployment within families, indicated by the high unemployment rate of wives of unemployed husbands. This phenomenon is probably caused by several factors including the fact that husbands and wives are generally subject to the difficulties of the same local labour markets and, perhaps, by a certain tendency for persons of relatively low employability (in terms of skill levels, etc.) to be found together in the same family. The high unemployment rate of wives of unemployed husbands may also be related to the fact that they may be forced to seek work because of their husband's unemployment and may thus enter the labour market when jobs are scarce and on less advantageous terms.

c) Duration of unemployment and labour market flows

Any analysis of the phenomenon of unemployment needs to take into account the dynamic nature of the labour market. Thus it is necessary to analyse not only the numbers of unemployed but also the size of the flows and the length of time that the unemployed spend in unemployment – the duration of unemployment. This section begins with an analysis of the duration of unemployment, based on regularly published national data, concentrating particularly on long-term unemployment, and then proceeds to display the relatively restricted but important information available on inflows and outflows. It should be borne in mind that international comparisons in this field are affected by national differences in factors such as group-specific labour force attachment and different provisions for old age, unemployment and training, which all impinge on labour market dynamics. Nevertheless, the analysis is illuminating.

Some recent data on the mean average duration of unemployment are shown in Table 11. They refer to spells of unemployment in progress, that is the length of time unemployed persons have already been unemployed at the time the survey or count of the unemployment register is taken. On average, the unemployed are being observed only half-way through their unemployment experience[15]. Thus, it can be concluded that people currently unemployed in the nine countries covered will have been in unemployment for an average period of roughly one year before they either find employment or withdraw from the labour force[16]. The period varies considerably between countries. The average duration in Canada, the United States and the Scandinavian countries covered appears to be much shorter than in the three EEC countries. It will be noted that the pattern observed is different from the pattern of unemployment levels. The duration of unemployment in Canada and the United States stands out as remarkably low in comparison with their unemployment rate.

15. This holds in a stable labour market where the probabilities of entry and exit from unemployment are constant. In a deteriorating labour market, the unemployed will be observed *less* than half-way through their spells of unemployment, on average.

16. It should be noted that another useful way of looking at the duration of unemployment is to ask the question: "How long, on average, can someone *just becoming* unemployed expect to remain in unemployment?" Data are available for a few countries to answer this question, as shown below. For a good discussion of the various concepts of unemployment duration see Akerlof (1979).

Table 11. **Mean average duration of unemployment in progress, 1973, 1977 and 1980[1]**

Months

	1973	1977	1980	Unemployment rate 1980[2] (%)
Australia	..	5.4	7.5	6.0
Canada	..	3.5	3.4	7.5
France	8.3	9.2	10.4	6.2
Germany	4.8	7.5	7.2	3.1
The Netherlands	6.3	9.7	9.3	4.9
Norway	3.0	4.0	4.1	1.7
Sweden	..	3.9	4.0	2.0
United Kingdom	7.9	8.0	9.8	7.4
United States	2.4	3.3	2.9	7.0
Weighted average		4.9	5.1	

1. For methods of calculation see Note C of the Technical Annex.
2. Standardised to international definitions.

Sources: National statistics and OECD *Labour Force Statistics, Quarterly Supplement.*

Table 12. **Composition of long-term unemployment (6 months and over)**
Share of long-term unemployed by age and sex[1]

Percentages

		Youth	Adults	Older workers	Males	Females	Overall unemployment rates[2]
Belgium	1981[4]	30.8	44.8	24.3	38.1	61.9	9.0
	1974	12.1	25.7	62.1	50.2	49.8	3.1
France	1980	37.3	40.7	22.0	35.3	64.5	6.3
	1973	32.6	35.9	31.4	47.9	52.1	2.6
Germany	1980	13.5	39.1	47.4	44.8	55.2	3.1
	1973	7.6	29.6	62.8	58.4	41.6	0.9
Netherlands	1981	36.9	51.1	12.0	67.7	32.3	4.9
	1973	15.6	52.9	31.5	84.2	15.8	2.3
Norway	1980	15.1	25.3	59.6	58.9	41.1	1.7
	1973	13.8	12.6	76.6	75.0	25.0	1.5
Sweden	1981[4]	27.5	37.6	34.9	48.7	51.3	2.0
	1977	24.8	31.4	43.8	40.5	59.5	1.8
United Kingdom[3]	1981	30.9	33.8	35.4	73.1	26.9	10.9
	1976	21.5	33.1	45.4	85.7	14.3	5.5
United States	1981[4]	29.5	48.4	22.1	67.2	32.8	7.0
	1973	31.0	34.0	34.9	61.5	38.5	4.7

1. Youth are those aged less than 25 years (30 years in Norway). Adults are those aged between 25-44 or 25-49. *Source:* National statistics of the duration of unemployment in progress.
2. On international definitions. *Source:* OECD *Labour Force Statistics, Quarterly Supplement.* Data for Belgium, the Netherlands, Sweden and the United States refer to 1980.
3. January data.
4. 1981 data are Secretariat estimates.

37

Numerous studies have shown the distressing consequences of long-term unemployment for the individuals concerned (e.g. Harrison, 1976). Tables 12 and 13 present data on the composition and incidence of long-term unemployment for the countries mentioned above, defining long-term unemployment as unemployment lasting six months and over. They are complemented by the more detailed Table N in the Statistical Annex, showing the proportion of unemployed observed to be in the four broad categories: less than one month, one to six months, six months and over and one year and over[17]. It can be seen that the proportion of long-term unemployed varies very widely from country to country, in ways which cannot be predicted from an analysis of the pattern of unemployment rates across countries. (The very high figures for Belgium are partly a consequence of the fact that the data strictly refer to periods of 'inoccupation' rather than unemployment.) Of the countries covered, the United States and Norway have the lowest proportions of long-term unemployed, at about 11 per cent of total unemployment.

The time series data shown in the Statistical Annex indicate that, as would be expected, the proportion of long-term unemployment generally moves in the same

Table 13. **The incidence of long-term unemployment by age and by sex (6 months and over)**

The percentage share of long-term unemployment in total unemployment within age and sex groups[1]

Percentages

		Youth	Adults	Older workers	Males	Females	Total
Belgium	1981[2]	66.6	74.0	81.9	63.4	80.9	73.2
	1974	39.5	60.0	82.6	71.1	63.7	67.2
France	1980	45.6	53.9	74.9	50.9	55.2	53.6
	1973	32.7	37.7	62.1	38.2	43.3	40.7
Germany	1980	18.0	33.3	56.9	36.2	36.2	36.2
	1973	8.7	20.1	44.9	32.1	21.8	26.7
Netherlands	1981	41.2	52.1	67.4	48.1	49.8	48.7
	1973	17.3	33.0	49.7	32.9	27.3	31.9
Norway	1980	3.4	10.1	27.3	10.0	12.7	11.0
	1973	1.7	2.5	12.4	5.8	6.3	5.9
Sweden	1981[3]	12.9	16.3	28.0	16.8	17.9	17.4
	1977	9.9	13.8	29.9	13.8	18.0	16.0
United Kingdom	1981[2]	30.9	36.8	51.1	39.5	35.6	38.4
	1976	16.2	29.7	48.6	34.0	16.7	29.6
United States	1981[3]	11.3	21.0	24.5	20.8	12.8	17.2
	1973	4.7	8.9	14.6	9.2	6.3	7.8

1. See note 1 to Table 12.
2. January data.
3. 1981 data are Secretariat estimates.

Source: National statistics of the duration of unemployment in progress.

17. It should be stressed that all these data refer to unemployment in progress rather than completed spells of unemployment. Canada has been excluded from Tables 12 and 13 since no data on duration of 6 months and over are available.

direction as the overall unemployment rate. There was a widespread recession-induced jump in the proportion of long-term unemployment in 1975-1976, but in those countries where unemployment subsequently fell, there was a progressive fall in the ratio. This applies, for example, to the United States over the period 1976-79 and Germany for the years 1978-1980. In other countries, however, where the unemployment rate continued to increase after 1975 (France and Belgium) or remained flat until 1980-81 (the United Kingdom and the Netherlands) the proportion of long-term unemployment stabilised or even continued to increase.

The composition of long-term unemployment by age and sex varies considerably from country to country. In Norway, 60 per cent of the long-term unemployed are older workers and only 15 per cent are youth, while in the Netherlands the proportions are 18 per cent for older workers and 32 per cent for youth. The comparisons over time do however bring out some similarities. As unemployment has increased, the proportion of long-term unemployed accounted for by both young people and prime-age workers has tended to rise and the proportion of older workers has tended to fall. (The United States is one exception. Here the share of youth in long-term unemployment has remained very stable at about 30 per cent.) The fall in the share of older workers partly reflects their declining participation rates. There is also a marked tendency for the proportion of women in long-term unemployment to rise over the period since 1973 (the United States is again an exception), partly reflecting the increases in female participation rates over that period.

At the same time, the relative incidence of long-term unemployment (the proportion of total unemployed in a given population grouping who are in long-term unemployment) has generally increased for all age groups and for both men and women. Old people remain particularly affected by long-term unemployment compared with other age groups.

The second part of this section considers the *inflows into and outflows from unemployment*. These flows indicate the incidence of unemployment and the rate at which the unemployed leave unemployment. As mentioned above these flows can be extremely rapid. To take a concrete example, in Great Britain a monthly average of 1 250 000 persons (excluding school leavers and adult students) were registered as unemployed in 1979. In that same year some 270 000 persons appeared on the unemployment register every month and about the same number left (Department of Employment, 1980). Thus, 22 per cent of the stock entered and 22 per cent left the register each month. However, as the British labour market has become more depressed over the past two years, the rate of inflow into unemployment has increased sharply to a monthly average of over 340 000 in 1981 while the rate of outflow from the unemployment register has remained very stable (the monthly average outflow in 1981 is almost 280 000)[18]. The corollary of this change in the flows is that the average length of time of a completed spell on the register has tended to increase.

Flows data are especially valuable because they highlight the dynamic nature of labour markets and provide additional insights into the incidence and hardship of unemployment. The drawback is that such data are only available for a few countries. The Secretariat has under way a study of labour market flows in four Member countries – France, Germany, the United Kingdom and the United States – while analyses of flows data are also available for Australia and Canada. The following discussion draws very heavily on this work.

Assuming that the state of the labour market is not changing too rapidly the unemployment rate in any given year can be decomposed into three elements: (i) the

18. Data are averages for the first seven months of 1981.

39

percentage of the labour force experiencing unemployment over the year; (ii) the number of spells per person; and (iii) the average length of a *completed* spell of unemployment. However, it is extremely difficult to get reliable comparative data on multiple spells so the discussion is restricted to the other two components, i.e. the risk of entry into unemployment defined as the percentage of people becoming unemployed over a year (and measured by the rate of flow into unemployment) and the average length of *completed* unemployment spells[19].

An analysis of the pattern of flows into unemployment yields one very striking result: much of the existing youth adult differential in unemployment rates arises from the fact that young people have a much higher probability of experiencing a spell of unemployment in any given period than adults. For example, using evidence from the 1972 General Household Survey in the United Kingdom, Nickell (1980, pp. 778-799)concludes that for males "the under-20s are more than twice as likely to enter unemployment than any of the over-25 age groups and have a 25 per cent chance of entering in any given year". Evidence from Australia, Canada, the United States and Germany shows a similar pattern.

Australian data for the year 1979-80 show that teenagers move from employment either to unemployment or exit from the labour force at about five times the rate of prime-age males. (Gregory and Stricker, 1981). Monthly flows data for Canada for the period 1976-1980 show that the incidence of unemployment among teenage males was over four times greater than that for prime-age males while the rate for young adult males was over twice as high (Hasan and de Broucker, 1981). In 1979 the incidence of unemployment among American teenagers was almost twice as high as the incidence of unemployment among young adults and almost five times as high as that for adults aged 25-59 years (N. Bowers, 1980). German teenagers and young adults in 1977 faced on average a 20 per cent risk of becoming unemployed during the year compared to only 14 per cent and 8 per cent for adults aged 25-34 and 35-44, respectively. Rapid transitions between employment, unemployment and out of the labour force are characteristic of youth labour markets. Such high turnover declines rapidly with age as young people accumulate more human capital and become more accustomed to employment[20].

The rate of unemployment is determined by the incidence of unemployment and the duration of completed spells of unemployment. Data on completed spells of unemployment are difficult to observe directly; little information is available on the length of time people have been in unemployment at the moment when they leave unemployment. Moreover, even if available, information on the actual distribution of completed spells of unemployment would be indicative of the labour market conditions over the previous years, rather than at a moment in time. For this reason it is useful to consider the concept of the expected completed duration of unemployment, a concept

19. It will be noted that this decomposition is in terms of the duration of *completed* spells of unemployment, while the calculations based on published national data contained in Table 11 above refer to the duration of spells *in progress*. The average duration of all completed spells of unemployment observed *over a given period* is generally *lower* than the average duration of spells in progress observed at a particular moment in time. For example, based on an analysis of Canadian flow data over the period 1976-1980, Hasan and de Broucker (1981) find that completed spells are on average only two-thirds as long as the average duration of in-progress spells. This perhaps surprising result is due to the fact that the average probability of leaving unemployment is lower for the unemployed of high duration than the unemployed of lower duration. Due to this fact, over a given period, there will be a relatively high number of spells of rather short duration, but only a small proportion of them will be observed in a survey of unemployment in progress at a moment of time.

20. In the case of France, where data on labour market flows of the under-25s are available separately for first-time job seekers, it appears that such young people find it particularly difficult to find employment. See Colin and Welcomme (1981).

which, essentially, answers the question: "How long, on average, can someone just becoming unemployed expect to remain in unemployment?"[21].

Data on expected completed durations by broad age-sex groups are available for Canada, Germany, the United Kingdom and the United States (see Table 14). These data are not directly comparable across countries First, the caveats given earlier in the discussion on interrupted spells apply here also. Second, the methods of calculation are different. With these caveats in mind, the data in Table 14 show several consistent patterns. First, expected completed durations are positively correlated with age in every case. For example, in Germany the average duration of a completed spell in 1977 was 2.2 months for teenagers compared with 2.8 months for young adults and 4.1 months for those aged 25-44. Second, in three of the four countries, women tend to have shorter expected durations than men; Germany is the one clear exception to this. Finally, the data for the United Kingdom and the United States show that expected completed durations increase when the overall unemployment rate rises, a pattern which is similar to that revealed by the data on interrupted spells.

Table 14. Expected completed duration of unemployment

Months

	Teenagers[1]		Young adults		Prime-age adults[2]	
	Male	Female	Male	Female	Male	Female
Canada						
1976-1980	2.1	2.0	2.6	2.3	2.6	2.2
Germany						
1977	2.1	2.3	2.4	3.3	3.3	4.1
United Kingdom[3]						
1973	0.8	0.7	1.1	1.0	2.2	1.8
1976	2.0	1.9	3.0	2.6	4.8	4.3
1979	3.7	3.4	3.6	3.8	5.3	5.6
United States[4]						
1973	1.6	1.5	1.7	1.6	2.0	1.7
1976	1.9	1.7	2.6	2.1	2.9	2.3
1979	1.7	1.6	2.0	1.8	2.3	1.9

1. Teenagers in the United Kingdom are the 16-18 age group, in Canada and Germany the 15-19 age group, and in the United States the 16-19 age group.
2. Prime-age adults are 25-44-year-olds except in the United States where the age group is 25-59.
3. Data refer to Great Britain only and are for July of each year.
4. Data refer to whites only.

Sources: Canada: Hasan and de Broucker (1981); *Germany:* Cramer and Werner (1981); *United Kingdom:* J. Bowers (1981); *United States:* N. Bowers (1980).

These two conclusions: the higher frequency of unemployment for young people and the positive correlation between expected completed duration and age need careful interpretation. They might seem to imply that young people, on average, move from one

21. There are close analogies between the expected completed duration of unemployment and the actuarial and demographic concept of the expectation of life. (The average duration of spells in progress corresponds to the average age of the population, at a moment in time.) Calculations of the expectation of life are performed using data on death rates. Analogously, calculations of the expected duration of unemployment may be performed using data on the rate of exit out of unemployment.

job to another relatively easily, while older unemployed workers, with higher levels of firm-specific skills, have increasing difficulty in finding satisfactory job offers and hence spend longer in unemployment. However, it must be remembered that not all labour market flows are between the states of employment and unemployment. In actuality people often withdraw from the labour force after a period of job search and jobs are often filled by drawing people into the labour force rather than simply hiring from among the unemployed. Evidence from Australia and North America suggests that the phenomenon of labour force withdrawal is especially important for young workers. It has been estimated that, on average, in each month over the period 1979-80, 15.7 and 17.3 per cent of unemployed Australian teenage males and females left unemployment and exited from the labour force respectively. The corresponding proportion for males aged 25-54 was 8.6 per cent (Gregory and Stricker, 1981). Similarly, 30 per cent of unemployed American teenagers in 1979 left the labour force within one month compared to only 20 per cent for those aged 20 and over (N. Bowers, 1980). Canadian data for the period 1976-1980 reveal the same pattern of higher withdrawal rates among teenagers and young adults than other age groups.

These patterns of high job turnover among young people, punctuated by brief spells of unemployment and high rates of labour force exit and entry, while adults tend to remain unemployed longer, are subject to differing interpretations (OECD, 1980c, pp. 60-63). Clearly young people are likely to be more mobile than adults, having on average less human capital and fewer family responsibilities, and they are also often able to rely more heavily on income transfers within the family to support them when out of work. Unemployment benefits, for which young people are typically less eligible than adult workers, may also tend to encourage adult workers to prolong their spells of unemployment[22]. The evidence from a wide range of cross-section studies clearly shows that the elasticity of average duration with respect to unemployment benefits is positive though small in size[23].

It is also very important to note that, despite an overall high rate of job turnover, the long-term unemployed leave unemployment only very slowly, especially in periods of high unemployment. The reason for this is that, as noted above, the probability of remaining in unemployment for an additional period, say one week or one month, is not independent of the length of unemployment duration already experienced. The probability per period of leaving unemployment (i.e. one minus the probability of remaining in unemployment) declines with the length of unemployment duration. This finding has been established for a number of different countries. For example, a study of flows through the unemployment register in the United Kingdom over the period 1963-1980 found that:

i) exit rates from the register for durations greater than six months are significantly lower for all age-sex groups than exit rates for shorter durations; and

ii) exit rates for any category of duration almost invariably decrease with age[24].

22. Cramer and Werner (1981) point out that in Germany in 1977, 28 per cent of unemployed teenagers did not draw any unemployment benefits, compared to 20 per cent for young adults and only 16 per cent in the case of adults.

23. See in Chapter III, Section 2*e)* the impact of unemployment compensation. Moreover, a recent study by Lancaster (1979, p. 956) concluded that an elasticity of unemployment duration with respect to the ratio of unemployment income to the last wage received of about 0.6 "could now be regarded as established beyond reasonable doubt".

24. See J. Bowers (1981). For an analysis of micro-data based on one local labour market in Scotland which produced similar results, see A. McGregor (1978).

Results from a cohort survey showed that the proportion of exits from unemployment to employment declines as duration and age increase. Thus, the author concludes that "the re-employment probabilities for most workers who have been unemployed for six months or more are probably less than 0.01 per week". (J. Bowers, 1981, p. 27). Similar results have been found in a number of French studies (Barge and Salais, 1981; Salais, 1980). One such study which used longitudinal data for the period 1977-78 found that the probability of leaving unemployment declined with respect to the length of duration and also declined strongly with age, no matter how long the individual was already unemployed[25]. This result held for all age groups except those aged less than 18.

The problem that remains is how to explain this negative correlation between exit rates from unemployment and unemployment duration. The recent literature concentrates on two possible explanations for this negative relationship: *state dependence* and *heterogeneity*[26]. The proponents of state (or experience) dependence argue that prolonged unemployment alters attitudes, skills or constraints that partly determine the probability of re-employment. For example, prolonged and/or multiple spells of unemployment may result in a deterioration of work skills and loss of human capital. Attitudes to work and job search may also weaken. Changes in these supply-side factors may well significantly alter future hiring possibilities and increase rigidity in the labour market. In addition, given imperfect information about expected productivities of individual workers, employers may use past work histories as a screening factor in the hiring process. In this way the individual unemployed worker may become less and less able to find employment, and more prone to remaining in unemployment as his unemployment experience lengthens.

The alternative explanation stresses the role of heterogeneity, i.e. the population of individuals entering unemployment differ in key characteristics which influence their probability of leaving unemployment. These characteristics may be very difficult to measure and control for, so that the degree to which this heterogeneity is responsible for declining exit rates is hard to assess. For example, one such difficult-to-measure characteristic may be "motivation to work". However, the population is probably heterogeneous with respect to motivation to work. Those who are work-shy will be more prone to remaining unemployed, and this fact would tend to cause unseen heterogeneity in the unemployed population.

In practice it seems likely that both heterogeneity and state dependence are present[27]. However, it is difficult if not impossible to measure the magnitude of each effect. Nevertheless, there are major implications for policy here. If state dependence is a significant factor the costs of prolonged and/or recurrent spells of unemployment will exceed current losses of income and, equally important, they may well persist into the future. In such a situation the case for selective labour market policies to aid the long-term unemployed would be very strong. To the extent that heterogeneity is important, this calls for a different set of policies emphasising selective remedial courses and intensive counselling aimed at certain groups within the unemployed, regardless of the duration of their unemployment experience.

25. Barge and Salais (1981). The longitudinal data were derived from a follow-up of all those recorded as unemployed in the October 1977 labour force sample survey.

26. For a discussion of these concepts see Heckman and Borjos (1980), also Kalachek (1980).

27. For one such attempt which concluded that state dependence was a significant factor, see McGregor (1978). However, he uses a very limited set of controls for heterogeneity in his regression analysis and he recognises that this will have biased the results. Hasan and de Broucker (1981) avoid some of these pitfalls by using data from the Canadian Labour Force Tracking Survey which permits them a wide range of controls reflecting demographic, human capital, financial and motivational variables. They conclude that "even when allowance is made for differences in various characteristics among individuals, there is evidence that individual escape rates themselves decrease with the period of unemployment beyond an initial level" (p. 58).

The analysis of exit rates from unemployment also permits examination of the assumption made earlier on that long-term unemployment is a valid proxy for structural unemployment. If it were it would be expected that improvements in economic conditions would have only comparatively small effects on exit rates at high durations of unemployment and that the average unemployment duration would fall mainly because of quicker departures from unemployment at lower duration levels. In fact, this is what has been observed using data for France (Salais, 1980), supporting the assumption which has been made.

Chapter III

RIGIDITIES AND FLEXIBILITY OF THE LABOUR MARKET

There are two apparently conflicting views about the functioning of current labour markets. Some argue that labour markets have become more and more rigid due to an accumulation of new social regulations, welfare programmes and equity-promoting measures. These interventions are assumed to prevent or retard market clearing and adjustment to structural change. One consequence is that the economy is likely to have become increasingly inflation-prone. This hypothesis is supported by the actual observation that inflation during the 1970s has started to accelerate at increasingly higher rates of unemployment. Thus the unemployment rate consistent with non-accelerating inflation or the "natural" rate of unemployment has been shifted upward and it is assumed that labour market rigidities may be one, albeit not the only, reason for it.

The rigidity hypothesis (or at least that part which relates to the impact of the above factors on workers' attitudes) is strongly rejected by others and, in particular, by those with practical experience in placing job applicants. They argue that with a considerable reserve of idle manpower the adjustment potential of the labour market has increased rather than decreased. If only new jobs were forthcoming the unemployed would move where they are needed. Given the psychological stigma associated with unemployment, as well as the economic losses, the great majority of unemployed workers would accept job offers even if these did not conform exactly to the characteristics, location, and remuneration of their previous jobs. Moreover, there is reason to believe that in a slack economy people are available outside the labour market who are able and willing to work and would adjust to new job opportunities if and when and where they arose. The latter is, however, more likely in situations where new jobs are generated in relatively less-skilled occupations, notably in the service sector, whereas the reserve of skilled labour outside the actual labour force is probably more limited.

A further argument brought forward against the rigidity hypothesis is the observation of:

i) a growing number of casual jobs;
ii) a sharp change of manpower utilisation practices at the enterprise level in favour of working hour adjustments, sub-contracting and other flexible measures; and
iii) the spreading of unrecorded employment, possibly as a response to prohibitive payroll taxes.

According to this line of thought the emergence of rigidities is not denied for some sections of the labour market, but it is postulated that powerful counter-movements or market adjustments have occurred with the result that, for some categories of labour, the market has become more fluid rather than more rigid. Even in that case, however,

the initial rigidities may have led to misallocation of resources and created equity costs.

In order to disentangle some of these arguments an attempt will be made to review, first, macro-economic evidence (very briefly) and then (in more detail) micro-economic evidence for and against the rigidity hypothesis. On the basis of this review some conclusions will be offered about the ways in which modern labour markets seem to function and what the policy implications are. This analysis is bound to be indicative only, since the type and weight of specific institutional, legislative and behavioural influences on the functioning of the labour market varies among OECD countries.

1. MACRO-ECONOMIC EVIDENCE

Diagram 2 shows successive outward shifts during the 1970s of unemployment/inflation combinations for the seven major OECD countries taken together. As can easily be seen these combinations have increasingly deteriorated; in other words a given rate of unemployment has been associated with successively higher rates of inflation and/or a given rate of inflation has been associated with successively higher rates of unemployment. In three years (1970, 1974 and 1980) the rise of unemployment was even associated with a further rise of inflation, the contrary of what is predicted by the Phillips relationship, namely, that there is a trade-off between unemployment and inflation. The outward shift was particularly pronounced after the first oil price shock. Thereafter the relation tended to stabilise and from 1977 to 1978 an inward shift even occurred. This intermittent improvement was again dramatically reversed after the second oil price shock, that is after 1979. The outward shift of the Phillips curve was associated with a rising mismatch between unemployment and physical capacity use. As shown by Diagram 3, the standardised rate of unemployment for six major OECD countries has risen strongly relative to idle capacity. The growth of the productive capital stock has slowed since the beginning of the 1970s despite stronger labour supply trends. In addition, production techniques have become increasingly capital-intensive adding to the phenomenon of high unemployment at comparatively high levels of capacity use.

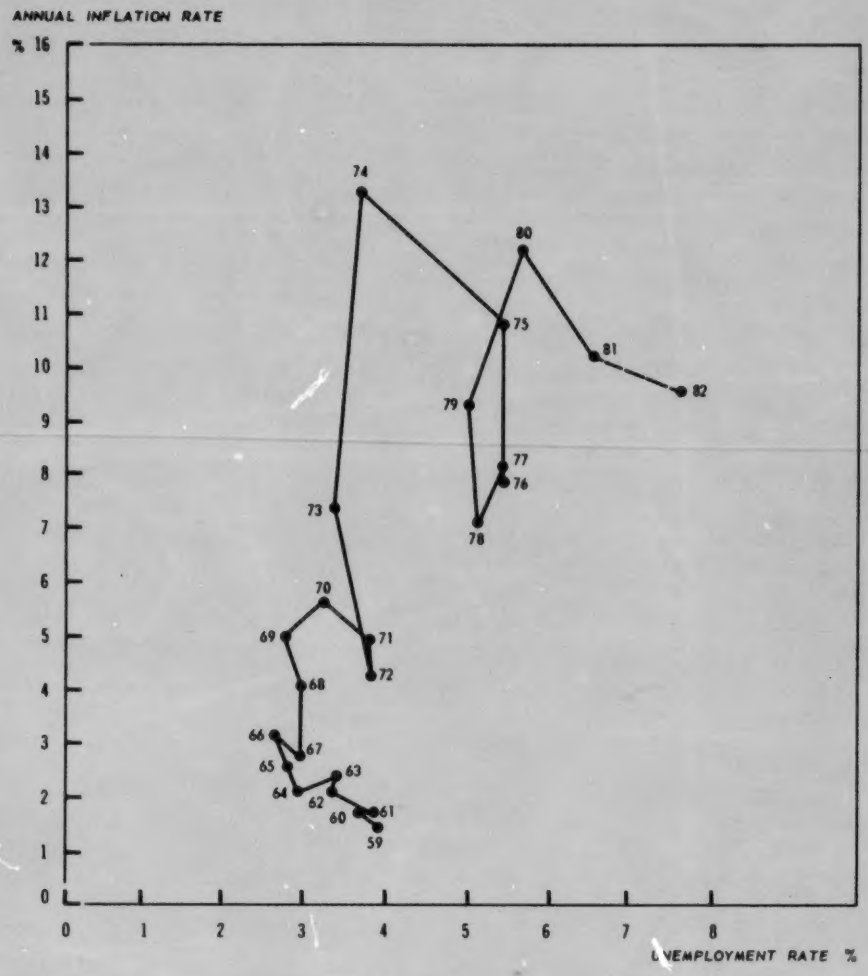
As mentioned in the Introduction the worsening and instability of the inflation/unemployment trade-off has severely reduced the efficacy of demand management policies. An abundant research effort has been undertaken to explain the worsening of the trade-off and/or to develop non-Keynesian macro-economic models. One major research result has been the identification of inflationary expectations as an important reason for the worsening of the trade-off. Recent OECD estimates of "expectation-augmented" Phillips curves have been presented to and were discussed by the Working Party No. 1 of the Economic Policy Committee. According to this research, inflationary momentum (reflecting wage-links, wage-price links and entrenched inflationary expectations) has built up during the 1970s as a result of external (mainly energy) supply and price shocks coming on top of a long period of high demand pressures. This momentum has shifted the Phillips curve outward so that a given rate of unemployment is now associated with a higher rate of inflation than it used to be. However, for any degree of momentum there still exists a trade-off which:

i) varies in size between countries;
ii) is often subject to long time lags;
iii) is asymmetric in the sense that inflation accelerates more rapidly than it decelerates for any given variation of unemployment.

Diagram 2

INFLATION AND UNEMPLOYMENT

(Major seven OECD countries)[1]



1. Canada, France, Germany, Italy, Japan, United Kingdom, United States.
Source: OECD Economic Outlook.

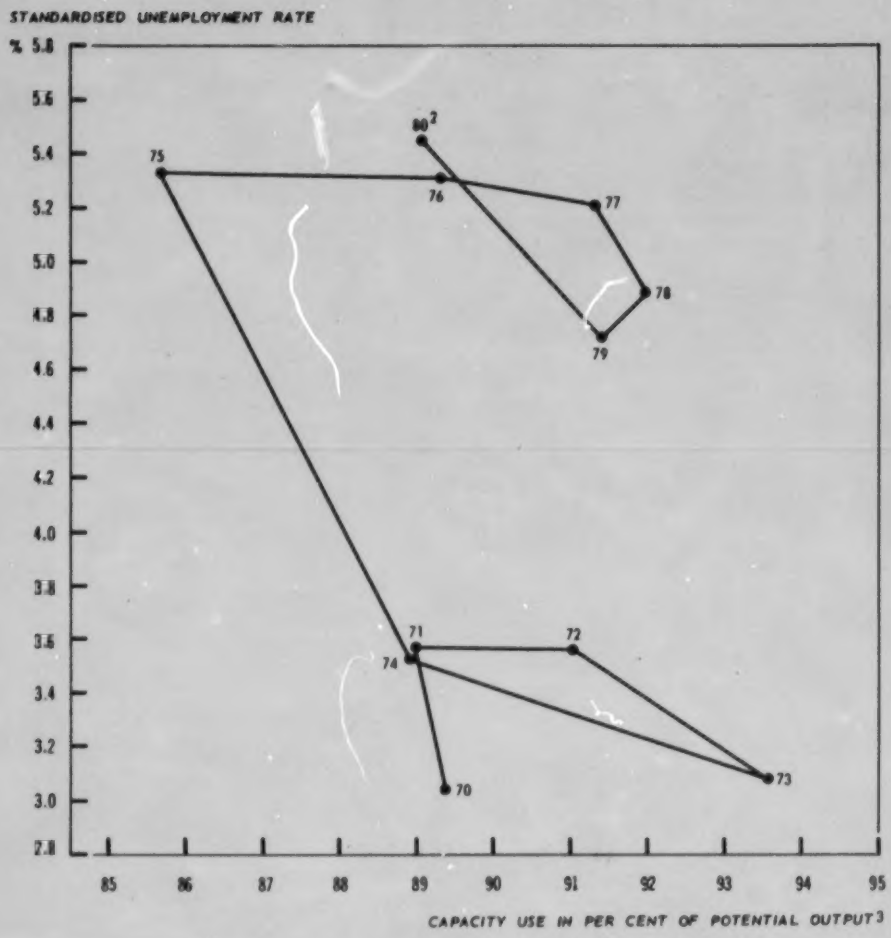
This Secretariat work underlines the importance of inflationary momentum but does not find evidence that the factors contributing to this momentum, such as real wage bargaining, formal wage indexation, restoration of wage differentials, and anticipation of future inflation in present wage and price decisions have fundamentally changed during the 1970s. These factors have always been at work but they have become more

47

Diagram 3

UNEMPLOYMENT AND CAPACITY USE

(Major six OECD countries)[1]



1. Canada, France, Germany, Japan, United Kingdom, United States.
2. Preliminary estimates.
3. Total private non-farm sector. Potential output data have been calculated using a putty-clay production function.

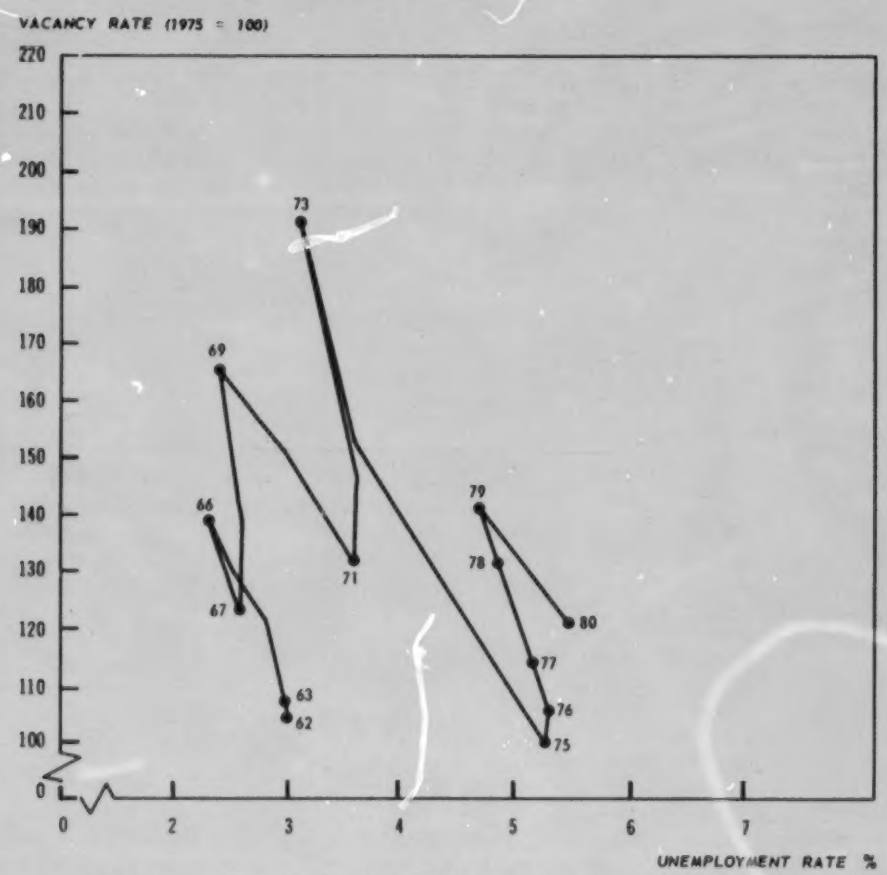
Source: Secretariat estimates.

evident now because strong external shocks have initiated inflation which has then been perpetuated by these inertias in the internal wage and price fixing process. The cited Secretariat study gives little credence to the importance of behavioural and institutional changes which, according to other observers, have altered the structure of the relationship between inflation and unemployment during the 1970s. Once the inflationary momentum is controlled for, the Phillips trade-off still exists and the

Diagram 4

UNEMPLOYMENT AND VACANCIES

(Major six OECD countries)[1]



1. Canada, France, Germany, Japan, United Kingdom, United States.

Note: The vacancy rate is defined as the number of vacancies divided by the total labour force, indexed at 1975 = 100. The unemployment rates are standardised to international definitions using the total labour force as denominator.

Sources: OECD *Labour Force Statistics* and *Main Economic Indicators.*

relationship is reasonably stable during the period under review. Thus this macro-economic evidence does not give support to such factors as increased labour market rigidities of a behavioural or institutional kind as being of particular importance in exerting an independent influence on the worsening of the trade-off. But given the highly aggregated nature of the analysis and possible identification problems associated with the statistical procedures applied, such a conclusion is tentative and certainly needs further investigation.

A different way of assessing the possible emergence of rigidities on a macro-economic level is to analyse the behaviour of the unemployment/vacancy relationship.

For any given structure of the labour market, vacancies and unemployment are negatively related and variations in overall demand move the vacancy/unemployment combination along a hypothetical curve which in Diagram 4 would be convex to the origin. Any change in the structure of the labour market would shift this curve outward or inward. A outward shift can be viewed as a deterioration in the functioning of the labour market, and vice versa.

Empirically, it is difficult to distinguish movements along the curve from shifts of the curve. Nevertheless, Diagram 4 suggests that some clear outward shifts have occurred for 6 major OECD countries combined. Similar evidence is derived from econometric work on the unemployment/vacancy relationship in 12 OECD countries reported on in Note D of the Technical Annex. Some fairly crude tests were undertaken to find out whether shifts of the relationship occurred in the early 1970s. Statistically significant shifts have occurred in seven countries (Australia, Canada, Finland, Japan, Norway, United Kingdom, United States) whereas in five countries (Belgium, France, Germany, Netherlands, Sweden[28]) no statistically significant shifts could be identified.

While these results provide some support for the rigidity hypothesis, a number of important caveats have to be underlined:

i) the analysis is highly aggregated and crude;

ii) nothing is known about the nature of the structural shifts underlying the relationship; they may range from higher regional dispersion, to administrative changes, to higher labour turnover, to mismatch unemployment, to a changing composition of the labour force and sectoral employment patterns, and certainly not all of these factors can be viewed as rigidities in the functioning of the labour market;

iii) vacancy statistics are rather unreliable and a worsening of the unemployment/vacancy relationship may simply reflect a secular improvement in vacancy registration[29].

2. MICRO-ECONOMIC EVIDENCE

A more direct insight into possible distorting influences on labour market adjustments can be gauged from reviewing recent changes in demographic trends, behavioural patterns of firms and workers, policy interventions, and institutional, legislative and collective bargaining arrangements affecting the labour market. However, it is impossible to be complete in this regard and only a selected number of issues can be elaborated. The following questions will be discussed.

i) Has the changing composition of the labour force affected labour market adjustments?

ii) Is there evidence of emerging skill shortages?

28. However, a recent Swedish Government Report found a clear shift in the relationship if workers covered by labour market programmes are counted as jobless. See Ministry of Economic Affairs (1981, p. 369).

29. In order to control for the latter possibility registration data from employment exchanges were compared with vacancy data from special sample surveys in a few countries where such comparisons are possible. Unfortunately not enough observations were available to apply a rigorous statistical test. But the available circumstantial evidence suggested that, in the countries reviewed, registration behaviour has not changed over time.

iii) Is there a declining propensity of workers to change jobs?
iv) What have been the labour market effects of minimum wage legislation?
v) How have unemployment compensation schemes affected the functioning of the labour market?
vi) Has there been a "hardening of the arteries" of the labour market due to increased job security provisions?
vii) What have been the likely consequences of increasing non-wage labour costs?
viii) Have there been significant changes in enterprise manpower practices?

a) Demographic shifts

The growing share of youth and female workers who experience above-average unemployment rates has exerted an upward pressure on the overall rate of unemployment during the 1970s in North America (United States Council of Economic Advisors, 1978). The opposite was true in Europe where the youth share continued to fall during the 1970s due to increasing enrolments in higher education. In the 1980s the phasing out of the baby boom effect will lead to downward pressures on overall unemployment in North America. In Europe the picture is more complicated: in some countries (for instance, the United Kingdom), there will be slight upward pressure during the first part of the decade due to the rising share of youth in the labour force. In Germany where the youth share will go up quite markedly no major effect is to be expected on the overall unemployment rate due to the small youth differential (see Table M of the Statistical Annex). No reliable forecast can be made about the future differential between male and female unemployment.

More important than these compositional effects on overall unemployment is the greater volatility of youth and female labour force behaviour. As was shown in the previous chapter, both groups tend to enter and leave the labour force more frequently than the rest of the working population. These observations point to the existence of a "threshold" labour force consisting mainly of married women, youth moving between education and working life, and, in many Member countries, foreign workers also[30]. These groups are acting as a buffer, entering and leaving the labour market in response to changing opportunities. Because of their flexibility these workers often tend to by-pass those on the unemployment rolls. In particular, recruitments for newly emerging unskilled jobs in the service sector are more concentrated among this threshold labour force. This is one of the reasons for the simultaneity of rising unemployment and rising employment (OECD, 1978a). In terms of labour market adjustments the existence and size of such a threshold labour force certainly contributes to short-term fluidity and flexibility.

b) Skill shortages

The coexistence of skill shortages and unemployment suggests that labour markets are not functioning properly, and that barriers exist to changes in wage differentials, and to skill acquisition, occupational mobility and the redesign of jobs to adjust to existing skills. Unfortunately, the notion of a skill shortage or scarcity is difficult to conceptualise and even more difficult to measure. The most frequently used measure is the number of vacancies which cannot be filled for some time. There is diverging

30. For further details see "Manpower and Social Aspects of Positive Adjustment Policies", OECD, forthcoming. It should also be noted, however, that due to the extension and increase of unemployment compensation some peripheral or "threshold" workers may stay in the labour market in order to secure entitlements.

51

evidence in some countries as to whether the number of such vacancies has remained the same in spite of the general rise of unemployment. According to a 1980 Canadian survey (Betcherman, 1980) 49 per cent of the participating firms reported problems in finding required skills since 1977 and 43 per cent expected to be faced with shortages in the 1980-1984 period. A quarterly survey on skill shortages in the United Kingdom (Department of Employment) reports a considerable fall between 1978 and 1981 in the number of firms reporting skill shortages as well as a fall in the number of firms whose production or expansion was inhibited by skill shortages. According to a German survey (Infratest, 1978) two thirds of the participating firms declared that their recruitment difficulties have not changed since 1973. A Japanese survey (Ministry of Labour) finds that the number of skilled workers in short supply (as a percentage of total skilled workers) has declined from 20 per cent in 1973 to 9 per cent in 1980. The same survey reveals that skill shortages in Japan are mainly confined to small enterprises and that they decline sharply with the increasing size of the enterprise. They are virtually non-existent in big enterprises of 500 and more workers.

Differences in national practices regarding skill shortages shed light on differences in the functioning of labour markets between OECD countries. The cited German study found that employers mainly spread the additional work load over several other job holders. In Canada the most frequent reaction is to increase training efforts. A United Kingdom study (Manpower Service Commission, 1979) found as the most frequent reaction the use of more overtime and another study (Hunter, 1978) concluded that: "a major contribution to recruitment difficulties and labour shortages in engineering trades has been the highly structured occupational system which constrains the redeployment of manpower between types of jobs".

These practices are in striking contrast to Japan where due to weak occupational demarcations the existing work force can be redeployed at short notice so that shortages will not arise. Such possibilities are however limited in small firms which, consequently, do report shortages. The distinction between the external labour market and the internal labour market is also relevant in understanding the emergence of skill shortages. In the presence of large scale unemployment firms recruiting predominantly in the external labour market will increase their qualification requirements or they will reduce their own training efforts in the expectation that they will find the required skills on the market. In countries where external labour markets prevail, notification of vacancies will rise in periods of economic slack and decline in buoyant periods.

In summary, the evidence on skill shortages must be interpreted with extreme caution. Although they may arise in some cases from rigid occupational structures, credentialism in education and vocational training, or from employers' lack of flexibility in redesigning jobs and providing training, they may often be of a fairly transitory nature related to required training times. This is not to deny that in some specific industries such as mining and construction, more fundamental shortages may arise requiring major efforts of public authorities over the longer term in fields like housing, training and counselling.

c) Mobility

Complaints about regional skill shortages are frequently accompanied by complaints about the declining propensity of workers to be mobile both regionally and occupationally. It is even more difficult to find hard evidence on the willingness to be mobile than it is on the emergence of skill shortages. What is usually available is impressionistic evidence and speculation about alleged behavioural changes of individuals. It is true, however, that policy efforts in the 1960s to increase regional mobility have generally been limited in their results (OECD, 1978a, pp. 48-49). With rising standards of living since then it is highly likely that the willingness to change

residence in order to find a job has further declined. Increased home ownership, poorly developed mortgage markets and markets for rental housing in many countries, strong differentials in housing costs and supplies of housing between regions, a growing number of multi-earner households: all these factors militate against regional mobility. On top of this there is usually strong local political resistance to the depopulation of rural areas and some countries have deliberately adopted policies to promote the stability of local populations and inhibit geographical mobility.

But even if one accepts the relatively low or even declining tendency of workers to change residence, there is the broader issue of whether the tendency to change jobs (with or without change of residence) in order to increase career prospects has declined as well. This might well have occurred as a result of risk aversion during present periods of uncertainty about unemployment, inflation and growth, or it might have occurred because of declining differentials between earnings and other incentives. Whatever the reason, such a declining willingness to change jobs would slow down or impede the reallocation of resources to their most productive use in an environment of permanent structural change.

In order to find some empirical evidence on this question the Secretariat has regressed voluntary turnover rates in three countries (United States, Sweden and Japan) on a cyclical demand indicator and a demographic shift variable. The cyclical demand indicator (proxied by the overall unemployment rate) was chosen because voluntary quits are expected to vary with the general economic climate. The demographic variable (represented by the share of young people in the total labour force) was chosen to control for the rising voluntary turnover resulting from a higher share of (more mobile) young people in the labour market. The results of this simple regression model are shown in Note E of the Technical Annex. For the United States and Sweden the model has satisfactory explanatory power. The parameter values obtained from the regression for the period up to 1973 were then used to forecast voluntary turnover rates in the subsequent years. As can be seen from the diagrams in the Technical Annex, the actual results have been distinctly lower than the forecast ones. This implies that other factors, and very probably a declining propensity to change jobs, have been at work. Unfortunately, similar albeit very simple tests could not be applied to other countries because of lack of data on voluntary turnover.

d) Minimum wage

Fixing a legal minimum wage floor has been part of a series of government interventions in the primary distribution of incomes. Such interventions have become typical in the more advanced versions of the Welfare State in which sole reliance on redistributory mechanisms through taxes and transfers is no longer regarded as sufficient to achieve equity objectives (Dobell, 1981). As with any intervention in the primary distribution of earnings strong warnings have been voiced regarding the possible distorting effect on efficient factor allocation[31]. A priori, the negative effect on the demand for youth, in particular, resulting from a minimum wage fixed above the entrance wage as determined by market forces, would have damaging effects on the orderly and efficient transition of young people into working life. Apart from these efficiency considerations questions have been raised as to whether the alleged social benefits of providing a minimum level of earnings to all workers match the social costs of increased unemployment of some low-productivity workers, notably youth who need work experience. There are several other possibly distorting influences such as upward

31. The underlying micro-economic theory is referred to in the following section on unemployment compensation.

53

pressure on wages as well as differential effects where the coverage of the minimum wage legislation is not nation-wide. The following considerations focus only on the employment and unemployment effect with particular reference to youth.

Experience and evidence regarding minimum wage legislation and its employment impacts is scattered and varies in character and quality from one country to the other. The following review presents national information varying from descriptive accounts to econometric research.

Denmark has a guaranteed minimum wage which is fixed by nation-wide collective bargaining and which covers all workers above the age of 18. Most strikingly, unemployment in the age group below 18 is only a third of that in the subsequent age groups less than 25[32] and the average earnings of young people aged less than 18 in 1979 was only 54 per cent of the guaranteed minimum. Although no rigorous econometric test has been applied, the obvious conclusion is that the absence of the minimum wage regulation for those under 18 has resulted in full employment for this group and has exacerbated unemployment for those who have passed the 18-year threshold. In a recent OECD Review of Youth Unemployment in Denmark (OECD, 1981a) a group of independent examiners has stressed the high social and economic costs associated with this policy. Young people in the age group below 18 who have left the education system and entered the labour market have reduced chances of continuing their career after the age of 18. They tend to be locked in a secondary labour market and experience job instability and unemployment as young adults.

The minimum wage system of *Japan* is rather complicated since there are both regional and industrial minimum wages. In all there are about 400 different minimum wages, although there are no age differentials in the Japanese system. Most industrial minimum wages broadly correspond to the starting wages for junior high school graduates, that is about 50 per cent of the average basic rate in the respective industry. Regional minima, on the other hand, generally average about 40 per cent of the national average basic wage. Despite the fact that statutory coverage is very high minimum wages appear to have had a very slight impact on low-paid workers. The reason for this is that only a very small proportion of wage-earners are actually paid at the minimum wage level. One commentator suggests that only 3-4 per cent of employees are directly affected (Matsuda, 1980).

In the *Netherlands* a legal minimum wage for adults was introduced in 1969. The legislation was complemented by the introduction in 1974 of a minimum wage for young workers aged 15-22, but at a rate which rises with age. The starting minimum at age 15 is 40 per cent of the adult rate. For each additional year an extra 7.5 per cent is added so that the full adult rate is payable at the age of 23. Not surprisingly, the minimum wage is relatively much more important for young workers than for adults: in 1979 almost 26 per cent of workers aged 15-22 earned the minimum wage compared to just over 5 per cent of workers aged 23-64. The total number of minimum wage earners (including part-time workers) represented 9 per cent of all employees in 1979. There is little formal evidence on the influence of minimum wages on the Dutch labour market. Some indirect evidence comes from an econometric model of the youth labour market over the period 1954-1974 which has been developed by the Netherlands Economic Institute (Bouman, Heijke and de Koning, 1979). The results showed that changes in relative wages induced by changes in the minimum wage had a significant positive effect on youth unemployment rates over the period. However, the extension of the minimum

32. For 1979 the unemployment rates among youth were:

– 18	4.2 per cent
18 – 19	12.1 per cent
20 – 24	13.3 per cent

wage system in 1974 to cover young people and the introduction of age differentials have undoubtedly produced a new situation so that evidence which refers to the pre-1974 period may not have much current validity.

In *New Zealand* a Minimum Wage Act of 1945 prescribes minimum wage rates for adults of 20 years and over. These rates are regularly adjusted upwards. The Act, however, has little economic impact as its rates are very low (currently about 35 per cent of the average ordinary time weekly wage), and the number of people on these rates is small. For the majority of the labour force, wage rates are negotiated in collective agreements or awarded by the Arbitration Court, and these exceed the rates prescribed in the Act. Some also include specific youth rates. The minimum wage controversy in New Zealand has been concerned less with the Minimum Wage Act than with the absence of youth differentials in some of the major awards. Overall there has been a slight tendency for the average youth rate to creep upwards relative to the adult rate. This together with a large youth cohort has reinforced concern about high rates of youth unemployment in New Zealand.

Unlike the countries discussed so far, in both *Canada* and the *United States* an abundant econometric literature on the economic impact of minimum wage legislation is available. In the United States minimum wage legislation was first passed in 1938 as part of the "Fair Labor Standards Act", and was amended since then several times both with regard to extended coverage and higher minimum wage levels. Currently, over 80 per cent of the labour force is covered. In Canada, where jurisdiction on minimum wages is mainly with the Provinces, the coverage is by now virtually complete.

In recent Secretariat work the North American econometric literature was reviewed. This review profited from two recent major investigations in the United States (Minimum Wage Study Commission, 1981) and in Canada (West and McKee, 1980). The econometric evidence can be summarised as follows:

i) Increases in the level and coverage of the minimum wage have given rise to disemployment effects, especially among the young. These negative employment effects are typically very small (the Minimum Wage Study Commission estimated for the United States that a 10 per cent increase in the minimum wage would give rise to a loss of 80 000-200 000 teenage jobs out of a teenage work force of some 8 million).

ii) The minimum wage also appears to affect labour force participation decisions. Some North American studies point to a decline in youth labour supply following a rise in the minimum wage but this conclusion is not unanimous.

iii) Most studies show a small but positive minimum wage effect on youth unemployment: the Minimum Wage Study Commission concluded that on average a 10 per cent rise in the minimum wage led to an increase of less than 1 percentage point in the teenage unemployment rate. Indeed, when the Commission staff updated many of these studies they found that the unemployment effect virtually disappeared.

iv) The balance of evidence suggests that a youth differential would produce some increase in youth jobs. However, since some of these jobs would clearly come at the expense of adult low-wage workers, it is difficult to predict the impact of a youth differential on total employment with much certainty.

v) All the evidence suggests that the minimum wage is a relatively ineffective instrument in reducing poverty.

In the same Secretariat report an econometric model was estimated for *France* to assess the impact of the minimum wage on youth employment and unemployment. The present version of the French Minimum Wage (SMIC) dates back to 1970. It provides statutory universal coverage and there are no regional differentials. Some limited

55

differentials do exist for apprentices, youth and handicapped workers but they are relatively unimportant. The number of workers affected by minimum pay over the period 1976-1980 varied between 3.5 and 5 per cent of the labour force. However, the sharp rise in the SMIC in June 1981 raised the proportion of workers directly benefitting from the minimum wage to 8 per cent of the work force.

The Secretariat estimates were based on a two-equation model (developed by Mincer, 1976) with the employment/ population ratio and the labour force participation rate as the dependent variables. Both these variables were regressed on a set of cyclical, minimum wage and trend variables. The calculations were disaggregated for various age-sex groups. The estimated minimum wage elasticities from the employment/ population ratio and labour force participation rate regressions were also used to compute unemployment rate effects. The results obtained were fairly similar to the North American findings:

i) Increases in the SMIC over the period 1962-1980 were correlated with small declines in the employment/ population ratio among French youth. The estimated elasticities suggest that a 10 per cent rise in the SMIC would give rise to a loss of between 45 000 and 65 000 jobs out of a youth work force of more than 3.2 million in 1980. The econometric evidence for the period 1968-1980 suggests that the disemployment effects are concentrated among teenagers while there may have been some gains in employment for young adults as employers seek to substitute them for relatively more expensive teenage labour.

ii) The evidence was rather mixed with regard to the impact of the SMIC on youth labour supply. Some results suggest that increases in the real value of the SMIC had given rise to a decline in youth labour force participation rates over the period 1962-1980. However, once allowance was made for the raising of the school-leaving age in 1968, this negative effect almost disappeared.

iii) The estimated labour supply and demand effects were combined to derive elasticities of youth unemployment with respect to the SMIC. Generally, these computed elasticities suggest that increases in the SMIC have only accounted for a very small part of the increase in French youth unemployment: on the basis of 1980 levels, a 10 per cent increase in the SMIC might raise youth unemployment by some 6 000-23 000.

e) Unemployment compensation

According to conventional micro-economic theory both a minimum wage and unemployment compensation will affect labour demand and labour supply in ways which prevent market clearing. A minimum wage set above the market wage will induce firms to move up their demand curves and thus reduce the quantity of labour employed. On the other hand, the rise in remuneration will induce new workers to enter the labour market and labour supply therefore will rise[33]. In the case of unemployment compensation, there will be a disincentive effect on labour supply in that the existence of income support reduces the cost of leisure and this implies a relative reduction of the reward from work. However, income support is generally only available for workers who declare themselves to be willing to work and looking for work. Thus, they have an incentive to signal a supply schedule which does not correspond to their real preferences at going wage rates and unemployment benefits. The unemployment of these workers,

33. This effect, however, was not supported by the evidence provided in the previous section.

therefore, can be viewed as voluntary[34]. At the same time, the rise in the reservation wage may push market wages upward or prevent them from falling and this in turn will both have inflationary consequences and reduce the profitability of keeping or hiring labour by firms and thus reduce the demand for labour. In addition there will be demand disincentives resulting from the financing of unemployment compensation depending, however, on whether and to what extent the incidence of this financing falls on employers. Finally, in the presence of generous unemployment compensation employers will have an incentive to lay off workers for a period of time or to resort to publicly-financed short-time working.

There is fairly wide room for questioning whether and to what extent the predictions of micro-economic theory correspond to reality in a given empirical context. Not all aspects of the above influences of unemployment compensation on the functioning of labour markets have received the same attention. In particular, the alleged negative effects on wage flexibility and on real wage adjustments to the slowdown of productivity by growth have not, so far, been empirically analysed. By contrast, the question whether unemployment compensation has led to voluntary unemployment has become a topical political issue in many countries. There is a wealth of stories about individual cases of abuse, fraud and legal possibilities for "beating" the system. But what does it all add up to in terms of the effects on overall unemployment? In order to answer this question, data are first presented on the rise of coverage and the present level of compensation relative to previous earning in selected OECD countries. Secondly, the results of a comprehensive OECD review of the literature on the economic impact of unemployment compensation will be briefly summarised.

Table 15 shows the rise in the statutory coverage of the work force (i.e. not the actual coverage of the unemployed workers) by unemployment insurance systems (excluding social assistance) in six OECD countries. In all countries, except the United Kingdom, the coverage has been extended since 1950. Nevertheless in 1980 (or the nearest date) strong differences in coverage between countries still exist. Table 16 shows estimates of the degree to which the income of unemployed workers is maintained in five OECD countries. The ratios indicate the annual disposable income of an unemployed

Table 15. **Employees covered by unemployment insurance programmes[1]**
Per cent of total civilian labour force

	1950	1960	1970	1975	1980 or nearest date
Canada	50.2	63.6	64.6	89.7	89.6
France	n.a.	38.2	55.8	59.4	58.8
Italy	38.0[2]	38.2	46.6	45.5	47.7
Japan	21.9	33.5	45.6	50.2	50.4
United Kingdom[4]	88.9	82.4	76.6	73.8[3]	n.a.
United States	55.2	66.5	72.0	76.7	89.5

1. Excludes general social assistance coverage.
2. Refers to 1957.
3. Refers to 1974.
4. Based on the analysis of contributions by type of benefit payable. No figure available after 1974 due to a change in the method of collecting contributions.

Sources: National statistics and official reports.

34. In a slightly different formulation of the same theory the reduced cost of leisure will lead to prolonged job search. At a higher reservation wage more job offers will be turned down and the duration of unemployment will be prolonged. Search theory is easier to test. As will be seen from the following research review, a frequently used method is to estimate the impact of a change in the replacement ratio on the average duration of unemployment.

57

Table 16. Income maintenance of the unemployed

Duration of unemployment	Income level (in % of income of average production worker)	Income maintenance ratio[1]			
		Single person		Married + 2 children	
Germany 1978					
3 months	66	93.0		94.2	
	100	96.3		94.0	
	200	92.7		92.2	
6 months	66	86.7		88.8	
	100	88.5		88.3	
	200	84.0		81.2	
Austria 1978					
3 months	66	91.3		95.6	
	100	91.5		95.1	
	200	85.4		88.1	
6 months	66	79.8		87.9	
	100	82.1		88.8	
	200	69.8		75.3	
Italy 1978[2]					
3 months	66	77.8		77.2	
	100	77.9		85.0	
	200	78.4		79.2	
6 months	66	55.2		59.4	
	100	54.7		61.8	
	200	55.4		57.1	
United Kingdom 1980/1981					
3 months	66	90.2		96.5	
	100	86.7		91.8	
	200	81.7		84.8	
6 months	66	81.2		93.9	
	100	73.8		85.3	
	200	60.1		67.4	
		Unemployed for economic reasons	Unemployed for non-economic reasons	Unemployed for economic reasons	Unemployed for non-economic reasons
France 1980					
3 months	66	100.7	95.8	100.2	96.2
	100	98.9	93.0	98.9	92.9
	200	96.6	90.8	96.6	90.4
6 months	66	101.4	91.7	101.4	92.3
	100	96.6	86.0	96.6	85.9
	200	92.1	81.7	91.7	80.7

1. Ratio of annual disposable income of unemployed workers in per cent of annual disposable income of the same type of worker in employment. For methods of estimation and definition of "average production worker" see the text and Note F of the Technical Annex.

2. Unemployment benefit only. Higher benefits are payable to construction workers (80 per cent of their earnings) and to workers in industry and commerce (e.g. cassa integrazione salari).

worker in per cent of the annual disposable income of an average production worker in employment. It is important to bear in mind that these are *not* replacement ratios indicating how much of previous (gross or net) earnings are replaced by income maintenance provisions when the worker is unemployed. The difference between the

latter ratio and the one depicted in Table 16 can best be demonstrated by an example. In Germany the statutory net replacement ratio is fixed at 68 per cent: a worker becoming unemployed receives 68 per cent of his previous net earnings in the form of unemployment benefits. However, if the worker only remains unemployed for a period of three months the *annual* ratio would go up to 92 per cent since during 9 months of the year the worker would receive his full earnings. Furthermore, the calculations of Table 15 are based on ex post comparisons of annual net disposable income profiles and take into account the portion of income replaced by unemployment benefits as well as savings due to reductions in income tax and social security contributions[35].

In most countries the loss of disposable income of typical workers caused by 3 or 6 months unemployment was generally limited and never exceeded one quarter of the gross income foregone as a result of unemployment. The proportion of income replaced declined with earnings levels. Larger families, however, do not appear to have fared better than smaller units in spite of proportionally higher unemployment benefit. The cause of this can be explained by the interplay of tax/benefit systems which favour workers subject to higher marginal tax rates.

Turning now to the impact analysis, a study prepared for the Secretariat by Professor Brendan Walsh, Dublin, on "Unemployment Insurance and the Labour Market: a Review of Research relating to Policy"[36] comes to the following conclusions:

i) There is some evidence that the increasing coverage and benefit levels have led to a rise in labour force participation. Unemployed workers who would in the past have dropped out of the labour force remain registered as unemployed as long as they are entitled to benefits. Higher benefits induce some people, notably students and married women, to enter the labour force in the knowledge that a spell of employment may entitle them to benefits when the job is terminated.

ii) Micro-economic studies of the behaviour of individual unemployed workers in the United States and the United Kingdom found some tendency for the duration of unemployment to lengthen in response to more generous or longer-lasting benefits. While using different econometric techniques, assumptions and data bases, these studies revealed a statistically significant but relatively small disincentive effect in that the increased reservation wage lengthens duration of unemployment and job search.

iii) More generous benefits are also believed to have altered the behaviour of employers by making them less reluctant than in the past to lay off workers in periods of slack demand. The workers and their unions are less resistant to a policy of periodic lay-offs when the spell of unemployment involves relatively little loss of net income due to the higher level of UI benefits paid. This incentive is believed to have had an important effect on the US unemployment rate, although some uncertainty exists about the accuracy with which lay-offs are classified.

iv) With regard to the effects on the rate of aggregate unemployment, the results vary according to whether cross-section or time-series data are applied. On the whole, cross-section data and research techniques tend to produce a relatively small effect on unemployment whereas most time-series estimates produce a significant impact. The most representative conclusion reached on the basis of cross-section analysis is Marston's (1975) verdict for the United

35. For further details on different types of replacement ratios, the definition of "typical workers" and sources of Table 16, see Note F of the Technical Annex.

36. OECD, forthcoming.

59

States that an unemployment rate of only 0.5 per cent should be attributed to the existence of unemployment compensation. The upper limit for the United States would be Feldstein's (1978) estimate of slightly more than 1 per cent of measured unemployment attributable to unemployment benefits and, in particular, induced lay-offs. On the other hand, several time-series studies provide important *prima facie* evidence that in many OECD countries registered unemployment would be significantly lower if the replacement ratio had remained at the levels that prevailed in the 1960s. One of the most extreme (and strongly criticised) estimates (Maki and Spindler, 1975) claims that the introduction in the United Kingdom of the Earnings Related Supplement in 1966 has increased total unemployment by one third.

v) After a careful review of the different estimation techniques applied the author of the OECD report quoted above concludes that the time series studies are on the whole much less rigorous and technically less satisfactory than the cross-section studies. The author, therefore, concludes that "the widespread belief that much of the recent rise in unemployment is due to the liberality of the UI (unemployment insurance) schemes in OECD countries is not supported by the findings of the academic research that has been undertaken on this subject over the last ten years".

vi) The author admits, however, that the available time-series research cannot be dismissed completely and concedes that the debate is still an open one. His final verdict is as follows:

"Whatever conclusions emerge in the longer run from the continuing academic debate about the importance of insurance-induced unemployment, the evidence so far suggests that this phenomenon does exist and should be taken into account in policy evaluations of the rise in officially measured unemployment during the 1970s. However, the evidence lends no support to the more lurid views of the importance of this phenomenon that have gained some popular credence. Moreover, governments have been quick to respond to the spread of this view about unemployment and most of the more glaring loopholes and anomalies in UI systems have been closed. For this reason, the further rise in unemployment that has been recorded in many OECD countries since 1979 should not be regarded as induced by the UI system".

f) Job security provisions

Traditional micro-economic theory which postulates that the demand for workers is identical with their marginal productivity schedule has for a long time been either radically criticised and replaced by alternative theories (see, for instance, Thurow, 1975) or modified by incorporating fixed labour costs and their implications for the demand for labour (Rees, 1973). In both cases the crucial importance of internal labour markets has been underlined. In highly industrialised countries and with increasing size of enterprises both firms and workers (or their representatives) have a vested interest in avoiding employment or wage fluctuations by resorting to other ways of market clearing, such as hours of work adjustment or changing recruitment and lay-off procedures.

One particular important reason for the "internalisation" of labour markets has been the rising need for firm-specific training. Such training which has to be financed by the employer ties the worker to the firm because the latter cannot sell the acquired skills on the open market and the former wants to obtain the returns from his investment on human capital over the longest possible period of time. Even in slack labour markets no bidding down of wages will occur (as predicted by micro-economic theory) because this

would be detrimental to the process of on-the-job training at the shop floor (Thurow, 1975). Workers will only be willing to teach newcomers to the firm how to do things if they know that they are not training future competitors. Similar observations can be made with regard to the acceptance of technological change. In a situation where job security and seniority rights prevail, resistance to the introduction of labour-saving technological change will be much less than in a situation where everybody – not only the last hired – is at risk of losing his job. It has become a widely held view, therefore, that internal labour markets in which promotion, training and redeployment take place inside the firm and workers enjoy a reasonable degree of job protection, contribute to a high degree of flexibility of manpower adjustment to economic and technological change. This finding obviously contradicts the proposition that reduced mobility and turnover resulting from job protection is always detrimental to the ability of the economy to adjust to structural change.

The system of lifelong employment in big Japanese enterprises is the most far-reaching example of internalised labour markets. Only workers with low skill levels are recruited from the open market and they then move up the occupational hierarchy within the enterprise. Their remuneration is more strongly related to seniority than to individual productivity. Since workers can only increase their productivity and remuneration by increasing the productivity and profitability of the enterprise (or work unit) they have a strong motivation to observe work discipline, to take productivity-increasing initiatives, and to accept technological change. In recent periods of combined structural change and economic slack, the Japanese system has coped remarkably well since on the part of workers there has been far-reaching acceptance of occupational adjustment and redeployment, and on the part of employers there have been strong incentives to diversify production and to develop new activities which permitted keeping the existing work force.

However, in other countries with a less vigorous commitment to life long employment and the mutual loyalty of workers and employers, the advantages of internalised labour markets have been challenged in recent years for two reasons:

i) During the 1960s and the early 1970s job protection became more of a general safety net similar to other extensions of the Welfare State. Whereas initially large segments of the economy, and notably of the unskilled labour force, were not affected by job protection, this has now become a generalised practice through the passage of legislation and broad-based collective agreements.

ii) The occurrence of sharp demand cuts after the first oil price shock and the persistence of sluggish labour market conditions thereafter had led to a new situation in that internal labour markets relying on voluntary quits and temporary lay-offs could no longer cope with the required manpower adjustments. Even more importantly, the halt to recruitments at the "ports of entry" to firm-specific labour markets has blocked the employment chances for first-job seekers and contributed to severe youth unemployment.

Particularly in the 1960s, negotiated agreements at the firm, industry and national level began to increase the individual's employment protection substantially, especially from unjust dismissals. Job security provisions laid down set procedures and defined valid grounds for dismissal, as well as extending periods of notice and providing for larger severance payments and supplementary income maintenance schemes. In 1963 the ILO adopted a recommendation setting out international standards and in many countries in the 1960s and 1970s basic job security provisions were incorporated into national legislation, leaving negotiated agreements to continue to improve upon these.

61

In the late 1960s and early 1970s job protection in some agreements was extended to provide additional protection for workers facing collective dismissals; in particular for older workers facing dismissal due to technical rationalisation and, in the 1970s, to work force reductions for economic reasons. These provisions included special procedures and payments for redundancies and requirements for prior notification consultation and in some instances approval, of the employee representatives and the employment authorities, and measures to keep dismissals to a minimum and assist with alternative employment. Again, some of these negotiated provisions were incorporated into national legislation. The actual provisions and legislation vary considerably among OECD Member countries, in accordance with their legal traditions, their industrial institutions and their different industrial development[37]. However, they have generally experienced substantial increases in job security in recent years through reducing employers' discretion, and making dismissals directly or indirectly more costly.

g) Non-wage labour costs

Job security provisions represent labour costs to the employer which do not vary with the amount of work supplied. They belong to a group of fixed or quasi-fixed labour costs which in turn forms part of a wider family of non-wage labour costs (NWLC). In terms of effects on the demand for labour it is the fixed cost element of NWLC which is the most important one. Fixed labour costs shield employment from cyclical fluctuations of product demand in that employers will absorb the latter by varying working hours (for instance through over-time and short-time working) rather than by reducing or extending their work force. However, fixed labour costs are distributed unevenly between types of workers. They are highest for skilled, permanent workers and lowest for unskilled, intermittent workers. Thus, because of fixed labour costs the segmentation between skilled and unskilled workers is reinforced. In the present situation of demand slack this is reflected by a relatively moderate incidence of unemployment among "primary" workers and a high incidence among "secondary" workers such as women, young people and migrants.

Unfortunately, statistical information is only available for some monetary NWLCs but not for non-monetary NWLCs (such as waiting periods in case of dismissals or on-the-job training). Moreover, the part of NWLCs which represents fixed costs is unknown. Table 17 shows the share of NWLCs in total labour costs for manufacturing industries in 9 OECD countries. Italy, followed by France and the Netherlands, show the highest shares (around 50 per cent), Japan and the United Kingdom have the lowest shares (less than 20 per cent). In all 9 countries the share has risen strongly since 1965; the strongest increase occurred in Sweden (from 19.0 per cent in 1965 to 38.1 per cent in 1978). As mentioned earlier, these NWLCs are not identical with fixed costs and strictly speaking, therefore, it cannot be inferred that fixed costs have risen as well. Nevertheless, this is a reasonable assumption and certainly corresponds to the observed rise in dismissal costs.

In many countries, a combination of structural, institutional and cyclical factors has over the past few years strongly raised social security expenditures. In countries with high social security taxes, high unemployment has, in addition to the rise in expenditure, caused sharp losses in social security revenues. To reverse the rising trend of social security deficits several countries have raised social security taxes. But in the absence of favourable prospects for adequate economic growth such tax increases may have undesirable consequences. There is some evidence that employers' social security taxes are not shifted backwards. Their increase, therefore, implies a rise in the relative price of

37. For detailed descriptive accounts see Gennard (1979), and Donaldson and Creigh (1979).

Table 17. **Share of non-wage labour costs in total labour costs'**
Manufacturing

	1965	1970	1973	1974	1975	1976	1977	1978
United States	17.1	21.0	23.3	23.0	24.0	24.9	25.4	26.0
Japan	14.6[2]	13.3	13.2	13.0	13.9	14.2	14.9	16.1
Canada	15.3[3]	16.6	16.9	18.3	18.9	19.2	18.9	22.0
France	40.2	39.4	41.3	42.5	43.8	43.6	43.7	43.7
Germany	29.7	32.3	36.6	38.0	39.2	39.8	40.1	40.8
Italy	45.0	47.4	48.8	50.3	51.4	51.3	51.4	—
United Kingdom	13.8	17.0	17.2	18.6	19.7	19.3	19.7	19.7
The Netherlands	31.6	38.7	38.9	42.1	42.9	43.0	42.9	43.0
Sweden	19.0	20.7	26.0	29.4	32.2	33.5	35.3	38.1

1. Non-wage labour costs include employers' contributions to social security and private pension and insurance schemes, remuneration for time not worked, costs of vocational training, costs of welfare services, payments in kind, and other payroll taxes.
2. 1968.
3. 1967.

Source: Swedish Employers' Confederation, *Wages and Total Labour Cost for Workers*, International Survey, 1965-1975 (May 1977), 1967-1977 (August 1979), 1968-1978 (October 1980).

labour weakening labour demand and adding to social security revenue losses and expenditure increases. Hence, attempts to maintain the self-financing of social security schemes via employer-financed increases in taxes may in periods of high and prolonged unemployment lead to a vicious circle.

h) Enterprise manpower practices

The rise of fixed labour costs and the ensuing internalisation of labour markets has been – at least partly – the result of both deliberate enterprise manpower policies and enforced (or collectively bargained) reductions in management prerogatives. In the first case employers will have established mechanisms for maintaining some flexibility; in the second case, it is likely that they will have found ways and means to circumvent the imposed restrictions on efficient manpower utilisation. In fact, a recent OECD Seminar on Enterprise Manpower Utilisation Policies revealed a great deal of conformity in firms' reactions to increasing job protection in different OECD countries. At the same time, however, the general rapporteur of the Seminar, Professor J. Freyssinet, observed that the gains in flexibility for firms are usually accompanied by serious shortcomings for the individuals concerned and for society at large. The lower stability of jobs increases the risk of becoming unemployed for a fraction of the work force, and the higher frequency of turnover and frictional unemployment entails additional expenditure on unemployment compensation.

Even a heavy reliance on a permanent and protected workforce does not condemn enterprises to total inflexibility. Manpower adjustments occur through working hour variations, natural attrition, acceleration or deceleration of recruitment, incentives to early retirement, etc. More important, however, is the simultaneous build up of a peripheral work force or the flexible use of external manpower resources. A certain number of peripheral workers are always available since newcomers do not enjoy the same advantages in terms of job security as the longer-serving staff. The "last hired first fired" principle always provides some flexibility. In addition, several types of low-skilled workers are left without access to the acquisition of seniority rights. Student workers, migrants, part-time workers, notably married women, fall into that category. They are used as a buffer to absorb fluctuations of product demand.

63

Recently in several countries an increase in the use of fixed-term contracts has been observed. In France, for instance, 25 per cent of all workers who lost their jobs in 1976 had failed to obtain the renewal of a fixed-term contract. This percentage increased to 35 per cent in 1979. Even more important appears to be the spread of temporary or intermittent employment. Here the enterprise leases labour from a temporary work agency which remains the legal employer of the worker. All fixed and variable costs are carried by the agency which bills the enterprise for a service rendered. The importance of labour leasing varies between countries depending on prevailing legal restrictions (Blanpain et Drubigny, 1980). In France and the Netherlands it accounts for over 1 per cent of the dependent labour force.

Finally, in several countries it has become commonplace to avoid manpower risks by resorting to sub-contracting of certain production activities. This strategy is, of course, only possible for bigger firms which can shift the burden associated with hiring and firing workers to small (and usually non-unionised) firms, home workers or to unrecorded production units in the "underground" economy.

j) Conclusions on the micro-economic evidence

The following findings emerge from the previous review of micro-economic evidence on labour market rigidities:

i) The rising share of women and youth has helped to push the overall rate of unemployment upward through more turnover unemployment. More importantly, these demographic changes have contributed to the emergence of a "threshold labour force" which acts as a buffer between fluctuations of product demand and hard-core employment.

ii) There is inconclusive evidence as to whether skill shortages have declined with the emergence of large-scale labour market slack. Any evidence on skill shortages must be interpreted with great caution since firms will increase qualification requirements and reduce their own training efforts in the expectation that they will find the required skills, in view of high unemployment, on the market.

iii) Spontaneous mobility of workers between jobs has probably declined during the long period of labour market slack.

iv) Minimum wage legislation has led to some, albeit modest, reductions of job opportunities especially for young workers.

v) The extension of coverage and increase in benefits of unemployment compensation systems has increased labour force participation of threshold workers ("entitlement effect") and has extended the average duration of unemployment. However, in terms of overall effects on the rate of unemployment the present state of research does not suggest that there has been a major upward shift in voluntary (or search) unemployment.

vi) The extension of job security provisions over and above previously existing practices in internal labour markets has probably constrained manpower adjustments at the level of the enterprise.

vii) The rise of fixed labour costs can be inferred from the very strong rise of non-wage labour costs in many OECD countries.

viii) Manpower utilisation at the level of the enterprise has been modified to secure flexibility in recent years.

The overall picture of this micro-economic evidence suggests diverging trends towards more labour market rigidity and towards more labour market flexibility. Both tendencies seem to coexist. Demographic shifts lead to more turnover unemployment but simultaneously to a more adaptable threshold labour force. Persistent skill shortages

reflect not necessarily mismatch unemployment but rather increased willingness to recruit from the external labour market and success in so doing. Higher unemployment benefits not only reduce work incentives but also reduce the costs of job search and thus contribute to a more efficient matching of workers and jobs. Internal labour markets increase the willingness to accept technological change, to provide on-the-job training and to redeploy manpower within the enterprise. The strong rise of job protection provisions has led to working hour adjustments and new types of manpower utilisation such as manpower leasing, part-time work, subcontracting.

Thus, the net outcome in macro-economic terms may well be that no major deterioration has occurred in the functioning and flexibility of the labour market. However, the apparent absence of change masks a number of serious social and economic drawbacks. Security tends to be concentrated on some specific groups of workers and fluidity on other specific groups of workers. This accentuates labour market segmentation between the economically strong and protected who have "good" jobs and the economically weak and disadvantaged who move between "bad" jobs. The latter are forced into involuntary mobility and carry a disproportionate part of the adjustment costs of structural change. In addition to these two segments there is a third category of workers. This group essentially represents those who cannot compensate for their employment handicaps, under current demand conditions, by increased willingness to be mobile and flexible: typical examples can be found among older workers with obsolete skills; they eventually become long-term unemployed and/or withdraw from the labour market.

A labour market which is increasingly compartmentalised into these three sections, – one characterised by job security, one by extreme fluidity and one by structural unemployment[38] – is not only detrimental in social terms, but also inefficient in economic terms, at least in the longer run. For the individual enterprise, however, efficiency gains are likely to occur in the short-term, especially if recruitment in the past was optimal: workers with strong human capital endowments form part of a hard-core of permanent employment whereas the need for adjustments to demand fluctuations is essentially met by peripheral workers, such as the young, women, migrants, etc.

From the point of view of the total economy these efficiency gains will, however, gradually be eroded if labour market slack continues and structural adjustments to new demand and supply patterns are required over the medium term. The employment barriers which benefit the protected labour force will gradually lead to the ageing of the existing stock of human capital since the "ports of entry" to the acquisition of work experience and on-the-job training are greatly narrowed. The non-protected group of workers, the highly mobile and adaptable, represents a convenient means to cushion short-term demand fluctuations. The emergence of casual jobs with no stability, social protection or career prospects also implies a serious long-term risk: those who accept these types of jobs now will find it difficult to make the transition to better jobs later on. This is particularly serious in the case of young people who meet institutional and behavioural barriers on the market for "good" jobs and thus have no other choice than to "price themselves into the market" by accepting low-status, low-paid jobs. In the absence of serious and continuous work experience and on-the-job training the chances of these young people eventually being absorbed into the market for skilled labour are practically zero. Similar considerations hold for women. If their employment is restricted to casual jobs in low-paid service sectors the chances to move up the skill ladder or to enter occupations which are traditionally held by men are very slim. In both cases human resources which could increase productive potential are ignored or, worse,

38. A concise formulation of these three states is offered in the following title: Good Jobs, Bad Jobs, No Jobs, Ginzberg (1979).

wasted. This is bound to reduce the flexibility of the labour market to respond to future structural change and to increase welfare costs in the longer term (if one considers that those who are in the secondary labour market today will be the long-term unemployed, the discouraged workers and eventually the welfare recipients of tomorrow).

The last group, the structurally or long-term unemployed and those who have withdrawn from the labour force, are at the bottom end of the selection process. They are unable or unwilling to compensate for employment handicaps by increased preparedness to accept casual jobs. They suffer poverty, social stigma and alienation. Increasing indications of a rising share of long-term and hard-core unemployment among young people (who traditionally experience above-average incidence but below-average duration of unemployment) point to the growing economic seriousness of the problem. Any lasting damage to the employability of significant fractions of today's youth is bound to reduce the productive potential of the economy. Also it will make an increasing fraction of unemployment insensitive to better general demand conditions and may therefore make any recovery more inflation prone.

Chapter IV

LABOUR MARKET PROSPECTS

1. SHORT-TERM PROSPECTS[39]

The OECD economy is still in recession, although the trough is now believed to have been reached and a modest recovery is foreseen for 1982. In the first half of 1981, economic activity was buoyant in North America and Japan, but output in European economies was stagnant. For the OECD area as a whole the annual rate of GDP growth was 2.4 per cent, after a slight fall in the second half of 1980. Recent indicators suggest divergent developments among the main OECD regions in the second half of 1981. In the United States, buoyancy in early 1981 seems to have given way to a decline of activity. In Europe, the consequences of the higher oil prices of 1979-1980 and of generally restrictive policies are still affecting domestic demand, but net exports are expected to contribute positively, so that real GDP may have been almost flat in the second half of 1981. In Japan the moderate recovery seems to be continuing, helped by buoyant exports and a pick-up in private domestic demand.

Recovery from the recession in 1982 seems likely to be moderate for the OECD area considered as a whole. The patterns of the recovery are forecast to differ somewhat among the United States, Japan and Europe. In the United States, after a 1½ per cent decline in the second half of 1981, real GDP is expected to decline further in the first half of 1982, but to increase thereafter. The four major European countries as a group are expected to recover in 1982 to growth rates of around 2½ per cent (annual rate) by the second half. In Japan, after slight deceleration in the second half of 1981 due mainly to the decline in public expenditure, a steady recovery seems likely, with real GDP growth accelerating to around 4½ per cent in the second half of 1982.

Employment growth is expected to resume in the latter part of 1982, reaching an annual rate of perhaps 1¼ per cent in the first half of 1983. Outside the United States where, owing to an untypical path of expected output, half-yearly developments are markedly different, employment is expected to stabilise in the first half of 1982, after falling for three consecutive half-years, and start growing again in the two half-years to end 1983 at an annual rate of perhaps ½ per cent. In Belgium, Spain and the United Kingdom, the fall in employment is expected to continue into the first half of 1983, albeit at a slower pace. Productivity growth for the OECD area is expected to have decelerated markedly in the second half of 1981 (by 1¼ point to ¾ per cent) chiefly owing to developments in the United States, where employment has fallen much less than output. In Japan there was probably a minor deceleration, while in Europe

39. This section is drawn from the *OECD Economic Outlook*, No. 30, December 1981.

67

productivity growth has probably continued steadily through the year. Productivity in the OECD area as a whole is projected to pick up during 1982, following the recovery of activity, to an annual rate of perhaps 2¼ per cent in the second part of 1982, but to decelerate in the first half of 1983, influenced by the likely slowdown of GNP growth in the United States.

Table 18. Unemployment in the OECD area
National definitions, historical statistics and forecasts

	1980	1981	1982	1981		1982		1983
				I	II	I	II	I
Unemployment rates								
United States	7.2	7½	9	7.4	7¾	9¼	9	8½
Japan	2.0	2¼	2¼	2.2	2¼	2¼	2¼	2
Germany	3.4	5	6	4.4	5½	6	6¼	6¼
France	6.3	7½	8¼	7.2	8	8¼	8¼	8¼
United Kingdom	7.0	10¼	12	9.9	11	12	12¼	12¼
Italy	7.6	8¼	9	8.1	8½	9	9	9
Canada	7.5	7¼	8¼	7.2	8	8¼	8¼	8¼
Total of above countries	5.7	6½	7½	6.3	6¾	7½	7½	7½
Other OECD countries	8.3	9¾	10½	9.3	10	10¼	10½	10¾
OECD Europe	7.0	8¼	9¼	8.3	9	9¼	9¼	10
Total OECD	6.2	7¼	8	6.9	7½	8	8	8
Unemployment levels (millions)								
North America	8.4	9	10¼	8.7	9¼	10¼	10½	10½
OECD Europe	11.4	14¼	16	13.6	15	15¼	16¼	16½
Major four European countries	5.9	7¼	8¼	7.3	8	8½	9	9
Total OECD	21.4	25	28¼	24.0	25¼	28¼	28½	28½

The labour force is expected to grow over the next 18 months at an annual rate of about 1 per cent in the OECD area, and at just under ¾ per cent in Europe. This, coupled with the weaker employment prospects in the first part of 1982, will probably result in a higher OECD unemployment rate of just above 8 per cent of the labour force (Table 18). The rate is expected to remain at that level until mid-1983. Numbers unemployed are now expected to reach 28½ million in the second half of 1982 – 2½ million more than predicted in the *Economic Outlook* No. 29 – with half of the stronger increase to be found in North America (where GDP is projected to be significantly lower), and most of the rest in the now traditionally high unemployment countries (the United Kingdom, Belgium, the Netherlands, Spain and Turkey). Unemployment is projected to peak towards mid-1982 in the United States, before declining marginally in response to a buoyant pick-up in GDP after a sharp recession. The unemployment rate in Europe is expected to grow throughout the projection period and to reach 10 per cent in the first half of 1983.

It comes as no great surprise that much of the burden of higher unemployment has been, and will continue to be, borne by young people. Youth unemployment rates are expected to increase sharply in 1982 in three of the four major European countries and

the United States (see Table 19)[40]. The slowdown in the rate of increase of youth unemployment forecast for the United Kingdom partly reflects the impact of the announced major expansion of the special programmes designed to lower teenage unemployment. Youth unemployment in the seven largest Member countries is projected to exceed 8½ million by the end of 1982 – an unemployment rate of 15¾ per cent – and to stabilise at that level in the first half of 1983. By mid-1983 the under-25s are expected to account for 43 per cent of total unemployment in the seven largest countries taken as a group compared with a projected share in the total labour force of just under 20 per cent. It is very difficult to make reliable up-to-date forecasts of youth unemployment in the OECD area but, on the basis of past trends, it seems possible that the youth unemployment rate in the area as a whole could reach 16½-17 per cent by mid-1983.

Table 19. **Youth and adult unemployment rates**
Historical data and forecasts

	Actual			Forecast	
	1979	1980	1981[1]	1982	1983/I
a) Youth unemployment rates					
United States	11.2	13.2	14.2	16¼	15¾
Japan	3.5	3.6	4.2	4¼	4
Germany	3.7	4.3	7	9	9¼
France[2]	13.3	15.0	17.0	20	20½
United Kingdom[3]	11.3	15.1	19.6	21¼	21½
Italy	25.6	25.0	28	31	31¾
Canada[4]	13.0	13.2	13.1	14	14
Total of above countries	10.8	12.4	14	15¾	15½
b) Adult unemployment rates					
United States	3.9	5.0	5.3	6½	6
Japan	1.9	1.8	1.9	1.9	1.7
Germany	2.6	2.8	4.1	5	5¼
France	4.1	4.2	4.9	5½	5½
United Kingdom	3.8	4.8	8.0	9¼	9¼
Italy	3.7	3.5	3¾	4	4
Canada	5.5	5.4	5.4	5¾	5¾
Total of above countries	3.3	3.9	4.5	5.1	5.0

1. The 1981 figures are actual rates for France and the United Kingdom. Figures for the United States and Japan are estimates based on actual data for the year up to October. For Canada the estimates are based on actual data for the year up to November. Figures for Germany and Italy are Secretariat forecasts.
2. Data refer to March of each year. Conscripts are included in the labour force aged 15-24.
3. Data refer to July of each year and include school-leavers. Youth unemployment rates for July, excluding school-leavers, for the years 1979, 1980 and 1981 are 7.5, 10.0 and 14.8 per cent, respectively.
4. The armed forces are excluded from the labour force aged 15-24.

Adult unemployment rates by the end of the forecast period are expected to exceed their 1981 levels in all of the seven largest countries except Japan. By mid-1983 the number of adults unemployed in these countries is forecast to be approaching 11½ million – an adult unemployment rate of 5 per cent.

40. The youth unemployment rates and forecasts shown in Table 19 differ slightly in a few cases from those presented in the *OECD Economic Outlook* No. 30 since they incorporate more recent information about 1981 developments.

2. MEDIUM-TERM PROSPECTS[41]

a) Economic growth and unemployment

The principal difficulty in making any reasonably reliable forecast of medium-term labour market conditions is uncertainty about demand side developments. That labour demand is derived from product demand compounds the difficulties: not only will medium-term demand and output growth depend on largely unknown developments in such factors as energy prices, trade patterns and wage bargaining behaviour, but it is also unclear how the relationship between output and employment growth will develop. This relationship, the conventional measure of productivity, has grown less in the 1970s than previously in most OECD countries (see Table C of the Statistical Annex). For the OECD area as a whole the average annual growth of GNP per employed person has slowed down from 4 per cent in the 1960s to 2½ per cent in the 1970s. Sluggish investment activities over a number of years suggest no major improvement in productivity performance. On the other hand, there is reason to believe that technological change will accelerate due to the widespread application of micro-electronics not only in manufacturing but also in the service sector which was characterised in the past by little scope for labour-saving technological change.

In terms of employment the future evolution of productivity has a double-edged impact. The stronger the rise in productivity the less labour will be needed to produce a unit of output. However, the slower the growth of productivity:

i) the greater will be the risk of inflationary pressures (in the absence of radically changed endeavours for increased real incomes and standard of living),

ii) the smaller will be the incentives for new investment and, consequently,

iii) the weaker will be the conditions for future growth of output and employment.

Thus, in a medium-term dynamic context, productivity growth and labour-saving technological change are necessary conditions for a *sustained* expansion of output and employment. A short-sighted policy to limit productivity growth in order to maximise employment gains would simply worsen medium-term employment prospects.

Even if one allows for some cautious optimism about future economic growth due to:

- rapid technological change
- further improvements in energy demand and supply balances
- a gradual improvement in overcoming the inflation constraint on growth
- maintenance of an open world trade system,

the really disquieting features which remain are the existing (and still rising) stock of unemployed and the existing (and probably still growing) mismatch in many countries between the size of the total labour force and the productive capital stock[42]. This means

41. In this section only a selected number of medium-term demand and supply side developments will be discussed. For a fuller treatment of the employment implications of changing industrial structures and changing trade patterns, see *Manpower and Social Aspects of Positive Adjustment Policies*, OECD, forthcoming.

42. This under-investment has two dimensions both of which can be related to market failures. Relative prices and wages have not adjusted to changing productivity and terms of trade trends, or to changing relative factor scarcities. "Not only does [the capital stock] seem to increase too slowly, but it also seems to be too capital intensive: new equipments [productive capacity] are labour saving whereas there is an excess supply of labour, and this may be due to a too low relative cost of capital with respect to labour"; see Malinvaud (1981).

that in order to absorb the excess supply of labour it will not only be necessary to achieve and sustain relatively high rates of growth of aggregate demand over an extended period of time but also to ensure that an appropriate share of GDP is going into productive investment.

The short-term forecast presented in the previous section foresees a further growth in numbers unemployed in the OECD area to 28½ million by the end of 1982. Productivity growth, which has now fallen to less than one per cent, may show some improvement and reach a rate similar to that of the late 1970s, that is about 2 per cent. Labour force growth (which will be discussed in the next section) is likely to continue at an annual rate of around 1 per cent. Thus, for the OECD area an annual growth rate of output of 3 per cent after 1983 will be needed to maintain everything as it is. Only a growth rate above 3 per cent would bite into unemployment. If average annual output growth were as high as 4 per cent it would still take slightly more than 4 years until the stock of 28½ million unemployed were reduced to 14 million, the level which existed in the early period after the first oil price shock[43].

b) Labour force growth

One of the key variables in this overall picture is the strong increase in the labour force and the need to create a sufficient number of jobs for newcomers to the labour market. The future size of the working age population and developments in labour force participation will influence what happens to unemployment to a considerable extent.

In previous sections of this report two factors were identified as being the most important influences on labour supply: the baby-boom effect and female labour force participation. Diagram 5 shows the effect of the post-war baby boom on the working age population. The numbers of 16-year-olds, representing the inflows into working age population, are shown for the years up to 1990[44]. The countries shown in the graphs are restricted to those which actually experienced a baby boom of any size. Diagram 5(a) shows countries with a baby boom which peaked in the 1950s, 5(b) shows countries with a baby boom peak in the early 1960s and 5(c) shows countries with a peak in the late 1960s or 1970s. Ireland is the only OECD country where birth rates have so far shown no significant decline and the inflows into working age population will therefore continue to rise through the whole decade. In all other countries a clear upward and downward movement occurred. In North America the boom started earlier and lasted longer than in Europe. Due to the shorter European boom most countries are now experiencing a reduction of inflows (except Denmark). In Australia and Japan the latest baby boom peaked only in the 1970s. Up to 1990 the inflows will continue to fall in most countries. However the falls will level off in North America and Denmark which will experience a short intermittent peak in the second half of the 1980s. In Australia and Japan a reduction in the demographic pressure of young people will occur only by the end of the decade[45].

The behaviour of inflows into working age population represents of course only half of the story. The total demographic impact on labour markets will be the combined effect of inflows and outflows. Table 20 shows for the seven largest OECD countries the

43. This assumes that an acceleration of output growth from 3 to 4 per cent would be fully reflected in employment growth and that the acceleration of employment growth would fully correspond to a reduction of unemployment. Thus, it is assumed that there would be no leakage of higher growth into productivity or more rapid labour force growth.

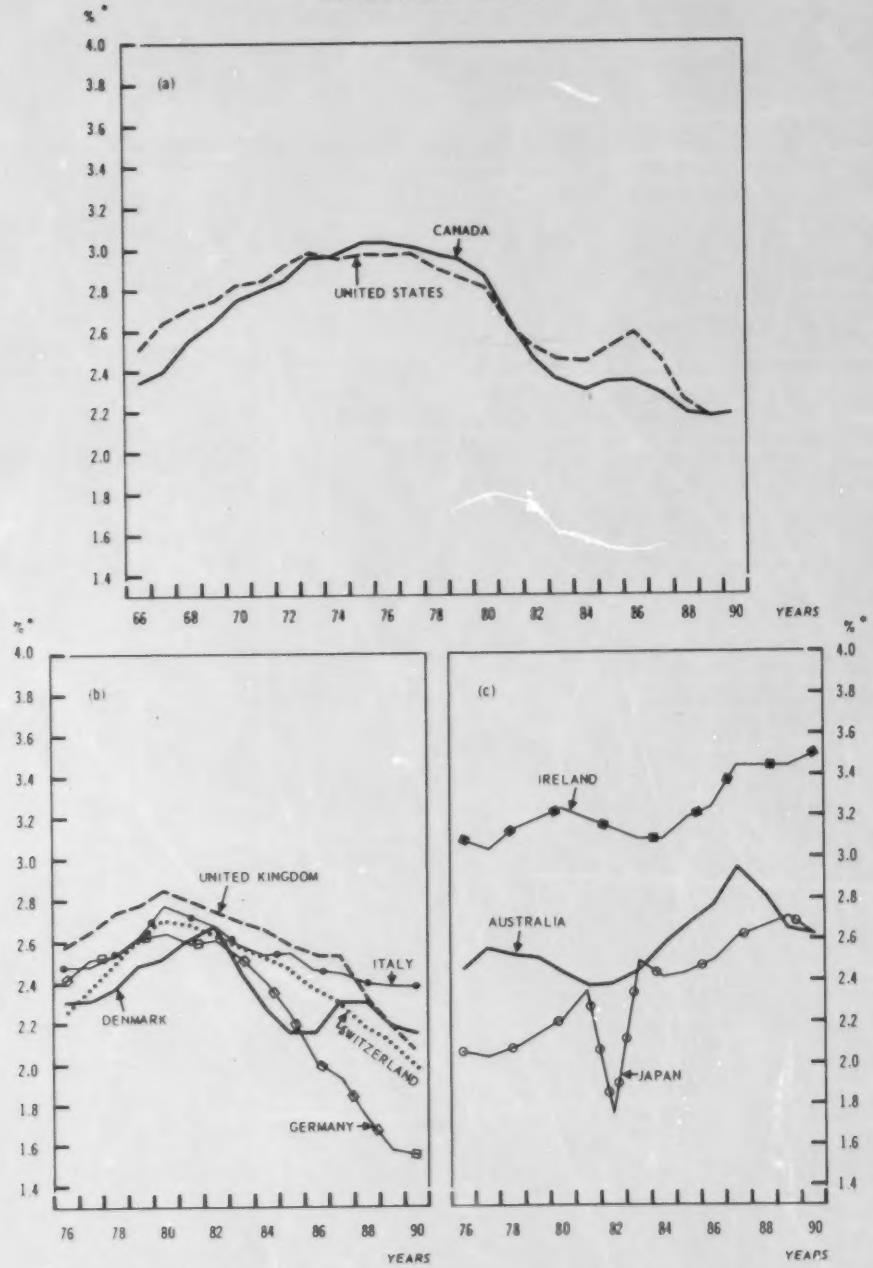
44. 16-year-olds have been used in this way as a proxy for the inflows into the population of working age since 16 is the normal minimum age for leaving compulsory education.

45. The sharp 1982 drop of inflows into working age population of Japan is caused by a drop in birth rates in 1966 due to a socio-cultural event, the year of the Hinoe-Uma (see OECD, 1979b, page 8).

71

Diagram 5

THE BABY-BOOM EFFECT



* 16 years old in per cent of working age population.

72

Table 20. **Components of change[1] of the population of working age (15-64), "big seven" countries**

Percentages

Country	Total percentage change			Contribution of inflows			Contribution of outflows			Residual factor		
	1975-1980	1980-1985	1985-1990	1975-1980	1980-1985	1985-1990	1975-1980	1980-1985	1985-1990	1975-1980	1980-1985	1985-1990
Canada	9.9	6.3	4.2	16.0	12.2	10.7	6.0	5.7	6.4	0.1	0.1	0.2
France	3.7	5.3	1.7	13.0	12.1	11.3	7.9	5.1	8.0	1.3	1.8	1.7
Germany	1.9	3.7	−2.5	12.9	11.8	7.8	8.7	5.8	7.9	2.2	2.4	2.4
Italy	1.5	4.2	2.5	12.4	12.4	11.3	8.3	6.6	7.6	2.6	1.6	1.2
Japan	4.1	4.4	4.6	10.9	11.3	12.1	5.6	5.6	6.4	1.2	1.3	1.0
United Kingdom	2.1	2.6	0.1	13.2	12.5	10.7	9.0	7.8	8.5	2.1	1.2	2.1
United States	7.2	4.5	2.9	15.0	12.2	10.9	6.7	6.6	6.9	1.1	1.1	1.1

1. For methods of calculation see Note G of the Technical Annex.
Sources: OECD, *Labour Force Statistics* and national publications.

73

combined effects of inflows and outflows. As can be seen in most countries the contribution of the inflows over the 5-year period 1980 to 1985 will become smaller reflecting the same underlying forces depicted in the previous paragraph. However, the opposite contribution of outflows that is the attenuation of labour market pressures due to retirement, will slow down as well over the periods 1980-1985 and 1985-1990 (with the noteworthy exception of Japan). As a result the combined effects of inflows and outflows will relieve demographic pressures in 1980-85 only in Canada and the United States. In all other countries they will grow in the 1980-1985 period. Thereafter, in the 1985-1990 period, demographic pressure will lessen in all countries except Japan.

While it is relatively easy to be assertive about the size of demographic pressures during the decade ahead (aside from migratory movements), it is much more difficult to forecast labour force behaviour. Future school enrolment is uncertain partly because there may be a growing trend to combine schooling with gainful work. Future retirement trends are also difficult to predict owing to the effects of early retirement in some countries and interruption of retirement in others. But even more unpredictable appears to be the future labour force participation of women. If anything, it must be assumed that past trends of rising female labour force participation will continue. In fact, during a recent OECD High Level Conference on the Role of Women in the Economy, OECD governments agreed to seek to improve the employment chances of women regardless of prevailing labour market conditions.

Table 21 shows the results for 14 OECD countries for which national forecasts of labour force growth are available (representing just under 80 per cent of the total OECD labour force). A major deceleration of labour force growth in the 1980s will occur in only a few countries. A slight deceleration will occur for all countries combined

Table 21. **Labour force growth in selected OECD countries**
Average annual rates of growth

	Historical data	Projections	
	1970-1980	1980-1985	1985-1990
Australia	2.2	1.1	1.2
Austria	1.0	0.9	0.1
Belgium	1.0	0.6	0.2
Canada	2.9	2.0	1.6
Denmark	0.8	0.7	0.7
France	0.8	1.0	0.6
Germany	0.0	0.3	0.0
Japan	0.8	0.8	0.8
Netherlands	0.9	1.2	1.1
New Zealand	2.0	1.7	1.2
Norway	1.6	0.8	0.8
Sweden	0.9	0.9	0.4
United Kingdom	0.5	0.7	..
United States	2.1	1.8	1.2
Weighted average	1.5	1.1	0.9
of which: due to changes in working age population	1.1	1.0	0.7
labour force participation	0.4	0.2	0.2

Sources: Labour Force Statistics, OECD, Paris; *Demographic Trends 1950-1990*, OECD, Paris, 1979; and national participation rate projections supplied to the Secretariat.

but labour force participation is still expected to exert a slightly positive influence on labour force growth. By far the most important contribution to future labour force growth will be, as in the past, the rise in working age population. There will be some further deceleration of labour force growth and both its components in the second half of the decade. Nevertheless, for the OECD area as a whole no dramatic reduction of supply side pressure on the labour market is to be expected in the 1980s. The future development of individual working time will also be relevant to unemployment. In fact, the forecast relative strong growth of the labour force may be misleading in the sense that many newcomers to the labour market will be looking for less than full time or less than full year round jobs. However, no reliable forecast of the working time dimension of labour supply is available. Part-time jobs for married women, for instance, may be a significant development in some countries but in others there is evidence that with rising educational attainments women are increasingly seeking full-time jobs. Individual working time is one of the crucial variables which may be affected by policy to balance future labour markets (see Chapter V, Section 3).

c) Technological change and employment

Technological changes of many and varied kinds will have a major impact on the level and structure of the demand for labour in the medium term. From an employment standpoint, the most important of these technological changes may well be the much-heralded "micro-electronics revolution". This section will be limited to a discussion of its effects. Several studies of this issue have been carried out at the OECD and elsewhere in recent years. The most recent was a review of national experience and projections in nine OECD countries discussed at the Second Special Session of the Working Party on Information, Computers and Communication Policy, organised by the Directorate for Science, Technology and Industry in October 1981 from which the following observations are drawn.

It is clear that the application of micro-electronics is potentially capable of changing employment and working conditions profoundly in all economic sectors. Diagram 6 shows the strong rise of the share of "information-occupations" in all countries examined. Machines endowed with elements of memory, intelligence and judgement will be able to perform a wider range of tasks than most existing machines, including many tasks which only human beings can do at present. Robotics allows flexible production lines combining part of the economies of scale offered by mass-production with a great deal of the flexibility offered by batch production. The new technologies offer the possibility of major increases in labour productivity, and gains in capital productivity in certain areas as well. At the same time as making it possible to produce certain existing goods and services more efficiently, micro-electronics opens up the possibility of creating a range of new products (for example personal computers and automated high-speed transportation systems) and new types of services based on the rapid provision of a wide range of information.

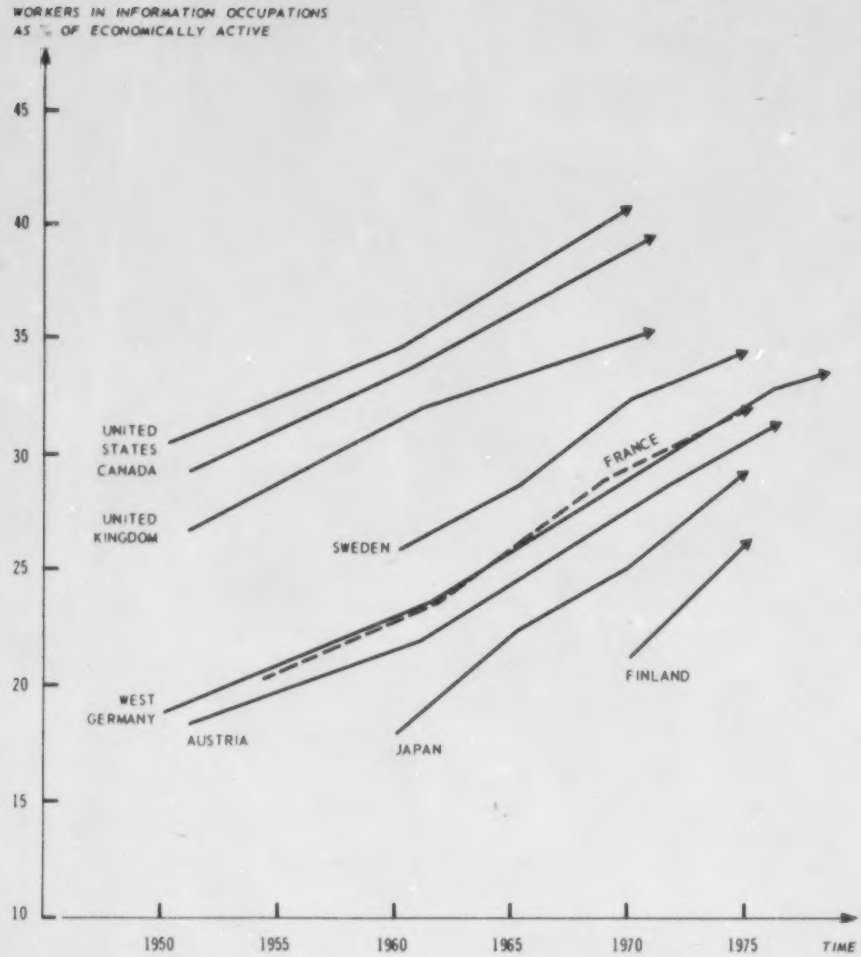
While there is little doubt that micro-electronics will indeed provoke major changes in the level and structure of employment, measurement of these effects is exceptionally difficult and controversial, as is perhaps only to be expected at such an early stage in its introduction[46]. Nevertheless, the review mentioned above of national experience and projections in nine countries comes to the following conclusions. Despite the expected gains in labour productivity and the loss of jobs in particular sectors and occupations, there are likely to be at least partially offsetting effects on unemployment. These may preserve or even increase employment in certain areas. Within the firm a successful

46. This discussion is not a new one. Since the first Industrial Revolution it has come up again with each new phase of technological advance. See for example Sauvy (1980).

75

Diagram 6

THE RISE OF «INFORMATION OCCUPATIONS»



Source: OECD (1981e), p. 25.

application of micro-electronics will lead to a reduction of unit costs and hence the potential for lower prices and increased output. Within the industry, gains in market share and perhaps employment in one firm may be accompanied by falling market shares and falling employment in other firms within the same industry but new products and processes may be able to increase total industry sales. However, the major compensation effects on employment are expected to occur at the level of the macro-economy. Technology multiplier effects will arise owing to the increase in gross investment needed to install the new technology and to produce the new products.

Reduced unit costs will lead to higher real incomes either directly through higher profits and wages or indirectly through reduced prices. Taking an international perspective, a comparatively advanced use of micro-electronics may lead to greater international competitiveness and improved export prospects. (Conversely, this implies that countries cannot afford to lag behind in adopting the new technology.) On the basis of national projections in the countries reviewed, a rough estimation of the average outcome is that 60 per cent of the direct technology-induced reduction of labour demand will be offset by 1990, *excluding* effects stemming from increased international competitiveness (which could further increase employment in some countries but not the international trading community as a whole).

It is also apparent that there will be very significant changes in the structure of the demand for labour, in terms of both the level of employment demand in different sectors of industry and the structure of qualifications and training needs. If labour market adjustments to these structural changes are not sufficiently prompt and smooth, a rise in mismatch and structural unemployment is fairly likely. This would in particular affect the low skilled, the elderly as well as women and young people entering the labour market in greater numbers but without appropriate qualifications. However, the extent of the required structural adjustments will largely depend on the speed of diffusion of the new technology and this may be slower than was believed originally.

Working conditions will also be affected, again in ways which are hard to predict. Greater use of automation and robots should improve physical conditions at work but, on the other hand, may not reduce the need for shiftwork since new, very expensive machinery may need to be run continuously to justify the investment.

d) Energy and employment

The sharp increase in energy prices has influenced employment in various ways and will continue to do so in the future. In quantitative terms the most important and immediate negative effect results from the real income loss, i.e. the transfer of purchasing power from the industrialised countries to OPEC. Thus, the higher oil bill which the industrialised countries have to pay implies that less effective demand is available domestically, hence less output, hence less employment. In many countries governments have been compelled to strengthen this deflationary effect on output by adopting restrictive policies in order to contain domestic wage and price reactions to the rising price of energy. Even allowing for the fact that part of the extra OPEC revenue is being spent on additional imports from OECD countries, the cumulative output loss induced by higher oil prices and the subsequent policy measures has certainly been considerable.

The disemployment effect resulting from the real income transfers to OPEC has probably been attenuated by positive employment effects triggered off by the change in the relative price of energy. The price of imported oil has increased relative to that of domestic oil and other sources of energy, and the price of energy generally has increased relative to other factors of production as well as relative to other final products. Therefore, substitution has occurred

i) between different sources of energy and
ii) between energy and other factors of production and other consumption goods.

Finally, savings have occurred both in production and consumption to reduce the waste of previously cheap energy. All these shifts have probably been associated with a significant effect on employment – its level, composition and regional distribution – as well as skill requirements and manpower adjustments.

With regard to possible employment effects resulting from shifts in the energy-producing sector (substitution of domestic for imported oil and other sources of energy

77

for oil) some information can be gauged from a recent OECD study which has explored the future investment requirements of this sector. The major conclusions seem to be: first, since the share of energy supply investment in total value added is not expected to increase by more than one percentage point in the eighties compared with the seventies, higher investments in this sector are unlikely to serve as an "engine" of growth; second, in some countries (Australia, Canada and Norway) the envisaged expansion of investment may encounter bottlenecks in terms of lack of skilled labour and financial "crowding out"; and third, there seems to be a general consensus that the price of replacing one barrel of imported oil through energy conservation is much lower than the price of replacing oil imports through expansion of other energy supply sectors.

Nevertheless, some significant employment gains have already occurred in the domestic oil producing industries and are likely to continue. A recent United States study (Greene, 1981) found that employment in oil and natural gas extraction industries has more than doubled between 1973 and 1980 (from 278 000 employed to 595 000 employed) whereas in the 10-year period prior to the 1973/74 oil embargo, employment in these industries had actually declined. Coal mining employment in the United States increased by almost 60 per cent (from 167 000 in 1973 to 266 000 in 1980). During the 10 years prior to the first oil crisis, coal mining employment had only increased by 16 per cent. The more moderate 1973-1980 increase in coal mining employment compared with that in oil and natural gas extraction can in part be explained by the expanded use of less labour-intensive surface mining techniques. In fact, productivity is approximately three times greater in strip mining than in underground mining. Employment growth in equipment manufacturing for energy extraction has reflected the very steep growth of oil and gas industry employment and the more moderate growth of coal mining employment.

These figures indicate the positive but varying employment effects arising from different domestic energy sources. Domestic energy production in the IEA (International Energy Agency) area is forecast by Member countries to increase at a 2 per cent annual rate of growth between 1979 and 1990 (OECD, 1981c). The various sources of energy, however, are estimated to experience very different rates of development. Current IEA oil production is estimated to decline slightly through the 1980s as increases in North Sea production will not offset declines from conventional fields in the United States. The IEA countries with significant production of oil include Australia, Canada, Norway, the United Kingdom and the United States. The production of coal is projected to increase by about 50 per cent between 1979 and 1990. The reason for this development is that coal is a relatively cheap, secure and abundant form of energy. About 45 per cent of the world's technically and economically recoverable coal reserves are located in IEA countries with North America, Australia, Germany and the United Kingdom all having significant deposits of coal. Coal can also be converted into synthetic liquids and gases and substituted for oil. Germany, the United Kingdom and the United States are establishing programmes to process synthetics from coal. Operation on a commercial basis should begin in the late 1980s or early 1990s. Further development of nuclear power production is likely to slow down. But as a source of energy for the generation of electricity, its share of total electricity generation is projected to increase to almost 22 per cent in 1990 from 11 per cent in 1979.

The different traditional energy sources vary in the extent to which they utilise labour rather than capital and in the types of labour they require. An increase in coal mining, for example, would increase the demand for craft and operative workers. However, coal mining is becoming more capital intensive and thus reducing the demand for labourers and service workers. With increases in oil and gas extraction, professional, technical and kindred workers are expected to experience the largest gains as exploration and development activities require petroleum engineers, geologists and other professional and technical employees. Power plant construction, on the other

hand, would result in increased demand for pipe fitters, labourers and electricians. Occupational requirements are also affected by the type of fuel used by electricity-generating plants. Nuclear plants require more specialists while coal-fired plants need fuel and ash handlers. Secondary impacts also differ by type of energy source. The work force for power plant construction is relatively temporary so that secondary impacts would be more limited than they would for an identical increase in work force due to the expansion of coal mining. Also, the carry over between the construction and operation work forces is very small in power plant construction.

The development of new and largely renewable energy resources (sunlight, wind, water, biological waste products) has received much attention and several studies have documented a substantial potential for employment (Rodberg, Dancker and Grossmann, 1980). But so far few workers are employed in these fields and a major breakthrough in terms of new investment projects has not as yet taken place.

So far only the employment implications of shifts between different energy sources have been discussed. Perhaps even more important is the shift between energy and other factors of production as well as energy savings in consumption. Macro-economic studies within the Secretariat have shown that the (output-constant) price elasticity of energy demand is higher than previously thought; earlier views held by many observers that energy demand is highly inelastic with respect to price have now been abandoned. However, the time lag until these reactions materialise is quite long. For instance, the first year reduction of energy demand in response to a one per cent rise in relative energy prices is only 0.1-0.15 per cent and it takes 6-7 years before the response has increased to 0.5-0.6 per cent. Nevertheless, these demand responses imply quite significant energy-saving efforts on the part of both firms and households. This implies expanding production and employment of energy-efficient capital equipment, transportation, household appliances, etc. Unfortunately, the employment effects of these energy-saving investments, so far, are largely unexplored and have not been quantified.

Secretariat work was also carried out on the macro-economic interfactor substitution. It was asked: Which factors are replacing energy as an input into the production process? This approach was based on various assumptions with respect to the underlying production function but for virtually all of the specifications chosen (so far confined to six of the seven major OECD countries) it was found that energy and labour are substitutes, whereas it is uncertain whether capital and energy are substitutes or complements. It should be noted, however, that due to the aggregate nature of the analysis the empirical estimates do not tell us whether the process takes place as a substitution of labour and capital for energy within individual sectors or firms or as a shift from more to less energy-intensive sectors and products.

In summary, therefore, it can be inferred that the sustained efforts of OECD countries to save imported energy have already resulted in and will lead to further positive employment effects in the years to come. However, the size of these employment effects will partly depend on future price signals and, in particular, on the wage/energy price relationship. If present differentials are maintained a resumption of output growth is likely to lead to significant gains in employment. However, these gains will again be destroyed if new real income shifts to OPEC countries are compared.

Part Two

POLICY RESPONSES

Chapter V

INCREASING AND REDISTRIBUTING THE DEMAND FOR LABOUR

Part One was addressed to the scope and nature of prevailing labour market problems; the present part will explore the possible range of future policy responses. The major areas of concern identified in the previous analysis are the following:

i) Even under optimistic assumptions, it would take many years to reduce the existing and still growing stock of unemployment to more acceptable levels.

ii) Except for a few countries, there are no signs of a significant reduction of future labour supply pressures.

iii) The incidence of unemployment is more and more concentrated on workers experiencing long-duration and recurrent unemployment, often compounding the labour market problems of some members of the groups which traditionally bear an above-average burden of unemployment, that is to say youth, women, older workers, migrants and ethnic minorities.

iv) There is a deterioration, partly related to *iii)* above, in the functioning of labour markets over the longer term. It may be that short-term efficiency gains are obtained by protecting the apparently more productive members in employment and leaving the apparently less productive members in unemployment (or casual jobs). These possible efficiency gains will be eroded however over time for a variety of reasons, the most important being that the "ports of entry" are closed for many newcomers. This retards or prevents the enrichment of human capital through work experience and on-the-job training.

v) Regardless of the overall growth performance, major employment and skill adjustments will be required to accommodate shifts in energy prices and the introduction of micro-electronics.

Given the limited success of policy during the 1970s[47] and the persistent and increasing problem of unemployment, what other policy options or change of emphasis in the mix of policy instruments might be thought of for the 1980s? The overall level of demand and the rate of economic growth will continue to be the most important avenue through which a lasting and sizeable dent in unemployment can be achieved. Therefore, demand management via the "big levers", i.e. fiscal and monetary policies, will continue to be, quantitatively, the most important approach. The current constraints on the application of this policy are, however, unlikely to disappear rapidly; inflationary pressures, balance-of-payments difficulties, ceilings on public expenditures and/or deficits, and uncertain energy supplies will continue to constrain action to stimulate employment.

47. The main orientations of labour market policies during the 1970s are summarised in Annex A.

A further avenue of policy which could favour a revival of labour demand is the reduction of cost pressures on firms, especially those associated with employing people: wage costs and payroll taxes. This could help to influence new investment and hiring decisions, particularly as firms may require higher expected returns before they will embark on new projects in conditions of increased uncertainty. However, a large and lasting reduction in real wages relative to productivity and in wages relative to other factor prices would require fundamental institutional or behavioural changes in wage-fixing processes. Substantial reform in payroll taxes, similarly, would require fundamental changes in approaches to social policy and/or the way it is financed in many countries. Change in these areas is extremely difficult and is likely to be slow.

Thus, neither the scope for demand stimulation nor the conditions for cost reductions appear to be very promising in the immediate future. However, simply waiting for market adjustments and a spontaneous revival of demand may no longer be sufficient for at least two reasons:

- First, the degree of economic slack may itself inhibit the structural adjustment process. People and firms may become less willing to take risks, invest in training, switch jobs, products or location while prospects remain bleak. Playing safe and protecting what exists become all-important. Thus, a higher level of activity could itself help to facilitate greater flexibility.
- Second, the known social and economic costs attached to high levels of unemployment may now be seen in some countries as too great a price to pay in the present for benefits in the uncertain future.

Thus, action is hindered by important constraints but inaction is likely to increase these constraints even further. The only way out seems to be a carefully chosen mix of labour demand stimulating policies acting both on the product demand and labour cost side. In addition, policies which favour market adjustments without undermining equity would, over the medium term, serve the same end (Chapter VI). However, such a policy mix has to be tailored to the prevailing circumstances and the nature of the policy constraints of individual countries. Therefore, the following dicussion of policy instruments should not be seen as providing support for any specific course of action in an OECD Member country.

1. INCREASING THE DEMAND FOR LABOUR

a) Income tax cuts

Income tax cuts raise employment through their impact on aggregate demand and consequently output. The effect will be lessened by leakages into savings and transferred to other countries by leakage into imports. Expectations can modify this basic reaction, either accelerating it through the announcement effect or undermining it because rising demand is met by putting up prices rather than by increasing output. Although the impact on the public sector deficit is initially strongly negative because of the loss of revenue, this is partially offset over time, if demand and employment do respond, by increased indirect tax revenue due to higher sales of goods and services, increased income tax and social security contributions as a result of increased employment and a reduction of unemployment-related government expenditure. The effect on actual numbers employed will be lagged, possibly by over a year or more as the productivity of any hoarded labour is likely to rise first, followed by an increase in hours worked.

Employers then need to decide whether the increase in demand is likely to be sustained before they take on new employees. A possible reinforcing effect is the stimulation to effort provided by an increase in the after-tax return to labour. There may also be a (once-and-for-all) reduction in the ensuing level of wage claims, compared with what it otherwise would have been, with consequent benefits for the rate of inflation, degree of international competitiveness and the rate of increase of public expenditure on wages and salaries.

b) Payroll tax cuts

Cuts in payroll tax (including employers' social security or pension contributions) reduce employers' costs in the first instance. The precise impact on employment will depend on the relative strength of various effects. If the tax had been shifted on to wages (which were therefore lower than they otherwise would have been) they could rise to take up the tax reduction, leaving the total amount of labour cost unchanged but increasing the demand for goods and services and hence employment. However, even with 100 per cent shifting the relation is not necessarily symmetrical: that is, an increase in payroll tax might lower wages by an equivalent amount but a reduction might not necessarily raise them. Assuming no compensating wage increase, two positive effects on employment may occur whose relative strength would depend on the extent to which employers either retain or pass on the benefit of the reduced costs in lower prices. These effects would flow from increased levels of demand for output, on the one hand, and, on the other, the change in the price of labour relative to other factors of production making labour less expensive and more attractive to employ. Although the immediate employment effect may not be marked this could inhibit further loss of jobs.

A cut in payroll tax is only one way of reducing the relative price of labour in order to

i) make the retention or expansion of the labour force a cheaper and more attractive option to employers (substitution effect) and

ii) enable employers to raise output, lower prices or both (scale effect).

An incomes policy dampening the growth of average wages or the removal of minimum wage floors are other examples. Tax credits related to numbers employed and employment subsidies also fall in the same category. The latter two are in fact fairly similar to cuts in payroll tax in that they affect either government's expenditure or tax revenue. With regard to these fiscal measures to reduce the relative price of labour, it is important to underline that they do not necessarily require fiscal expansion – though this certainly makes the choices easier. They can be achieved by a reallocation of resources and revenues, and in one case, can actually be associated with a fiscal gain (withdrawal of subsidies or tax concessions to other factors of production).

If payroll tax cuts and employment-related tax credits are implemented across the board, they are equivalent to an average employment subsidy to the firm (but if the government is less averse to foregoing revenue than to increasing expenditure, it is likely to favour a tax method). An average employment subsidy is a subsidy on the stock of labour, and reduces the carrying costs of the whole stock: it is to be distinguished from a subsidy at the margin designed to inhibit redundancies or promote recruitment and thus to influence flows. The deadweight cost is greater with an average than a marginal subsidy: that is, the amount wasted in the sense that the employer would in any case have employed that number of people. This is less serious a problem if the scale effect is the most important consideration: for instance if the policy objective is to lower real wage costs relative to productivity performance. The ensuing financial burden to the public purse is, however, considerable compared with marginal employment subsidies (or tax credits) which are much more cost-effective if the policy is focused solely on employment flows at the margin.

c) Marginal employment subsidies

The most widely adopted policy to stimulate employment directly, without prior stimulation of product demand, consists of marginal employment subsidies (or tax credits). This type of policy became prominent after the 1974/75 recession. The Manpower and Social Affairs Committee at Ministerial Level of March 1976 placed particular emphasis on the need to monitor and to evaluate the experience of Member countries in this area. Over the past years, several Secretariat studies have been addressed to this policy approach[48] from which the following conclusions can be drawn.

There are basically two employment objectives at which marginal employment subsidies can be aimed: a counter-cyclical one of increasing or protecting aggregate employment during a recession, and a structural one of promoting more equal access to employment opportunities and improving the functioning of the labour market. The great majority of countries have adopted subsidy schemes which represent a mixture of anti-cyclical and structural elements. This double policy objective has considerably complicated and blurred the discussion on the possible and actual impact of these schemes and their evaluation. For the sake of clarity, however, it is useful to make a distinction between the two objectives and to discuss the potential employment impact of anti-cyclical and structural subsidy programmes separately.

The anti-cyclical objective is characterised by the broad-based and non-discriminatory promotion of employment. This is typically achieved by redundancy-deferring subsidies and marginal stock subsidies which aim at maintaining or increasing the level of aggregate employment. However, the allocative effects of these two schemes are quite different. The experience of the last decade has shown that redundancy-deferring schemes carry the risk of protecting structurally weak enterprises and of maintaining the attachment of workers to these enterprises, although this risk can be reduced by several provisions, such as the stipulation of a maximum length of subsidy payment per individual employee, or the requirement to provide the subsidised worker with training. An unforeseen perpetuation of demand slack is likely to increase the pressure for this type of employment protection. Since structurally weak firms in addition are frequently weak because of stiff international competition, governmental financial support to these firms for the purpose of maintaining their work force has implications as a form of export subsidy (and/or import-displacing subsidy).

Marginal stock subsidies favour expanding firms rather than weak and declining firms. However, the expansion of output will be more labour intensive and hence productivity growth slower than without the subsidy. But there will be future productivity gains resulting from the employment, work experience and on-the-job training of workers hired, in particular young workers. In any event, possible distorting effects on the functioning of product and labour markets through a marginal stock subsidy will be trivial if it is a temporary programme adopted during a recovery period. In summary, therefore, marginal stock subsidies are clearly superior to redundancy-deferring subsidies on resource allocation grounds. The latter type of subsidy will not be further discussed.

Marginal stock subsidies (or incremental employment subsidies)[49] reduce the costs of expansion, and thus reduce the risk of price increases normally associated with the expansion of output and employment. In addition, they may increase price competition since participating firms will try to expand their market share. In principle there is some similarity between this type of employment subsidy and any other form of subsidy paid to expanding firms. In particular, the relationship to an incremental investment subsidy

48. For instance *Marginal Employment Subsidies*, OECD (forthcoming).
49. These expressions will be used synonymously.

is a close one, the only, though important, difference being that additional investment may take place prior to rising demand (and in the case of rationalisation or an advancement effect, even independently of higher demand) while it would make little sense to hire more labour in advance of any assured rise in product demand. If labour and capital are fully complementary factors of production, a subsidy to additional labour could simultaneously help to stimulate investment and vice versa. The principal idea would be to foster growth by helping firms to overcome prohibitive cost thresholds, in terms of either labour or capital costs. If labour and capital are substitutes, and expansionary employment subsidy might retard the introduction of labour-saving equipment and thus productivity performance; an investment subsidy, on the other hand, would accelerate the process of capital-labour substitution. In order to maintain relative factor prices yet stimulate expansion, it would be appropriate to subsidise labour and capital simultaneously or to subsidise only investments resulting in capacity extensions (or job-preserving rationalisations), or to offer preferential investment incentives to labour-intensive firms.

The objective of raising the level of aggregate employment implies that a number of macro-economic considerations have to be taken into account. A subsidised firm could increase its output and employment at the expense of the output and employment of its non-subsidised competitors. It is important, therefore, to administer incremental employment subsidies during a period of improved demand prospects when this risk of output displacement would be relatively small. During such a period, however, there is a likelihood that expanding firms will avail themselves of the subsidy without changing their behaviour, i.e. they would have increased employment in the absence of the subsidy. While these firms would make a windfall gain in the short term, such a gain may be partly passed on to consumers in the form of reduced prices and may improve the profitability of the subsidised firms. The financing of the subsidy scheme (tax-financed or deficit-financed) will also have secondary effects on employment. These secondary effects, however, will not be different from any other form of expenditure increase or tax cuts to raise aggregate demand and employment.

So far only the anti-cyclical objective has been considered. If a structural objective is envisaged, the most effective type of subsidy is a targeted recruitment subsidy. Such a scheme also operates on the margin in that only newly hired workers qualify for subsidy. But unlike a marginal stock subsidy, the firm is not required to increase its total work force above a stipulated base level. Secondly, the subsidy is targeted to workers with special employment problems which has the considerable advantage of increasing the employment opportunities of those who are in above-average excess supply. Since their supply is particularly elastic and, moreover, since they are usually less organised, the risk that their employment will create additional wage pressures is particularly low.

The main problem with targeted recruitment subsidies is that they may result in "churning", i.e. target workers may be hired as long as they qualify for the subsidy and then be replaced by other target workers. To some extent this can be avoided by requiring a minimum length of job duration and by paying the subsidy only at the end of this period. More serious is the likelihood that target workers are recruited but non-target workers are dismissed simultaneously. In this case, however, the structural objective of the programme would still be achieved: the structurally unemployed would find jobs, total unemployment would consist of less long-duration, hardcore unemployment, and the segmentation of the labour market, and possibly also the downward rigidity of wages, would be reduced.

In summary, therefore, a marginal stock subsidy (or incremental employment subsidy) would seem to recommend itself as an efficient employment-promoting device on a temporary basis during a recovery period. Such a scheme could be structurally oriented by providing a flat-rate subsidy which would help lower-paid workers. A more

ambitious objective, in terms of improving the structure and functioning of the labour market, could be served by targeted recruitment subsidies. In this case the period of subsidisation would need to be a longer one to permit the adjustment of various enterprise decisions to the changed relative factor price of the target group.

d) Public sector job creation programmes

Direct job creation in the public sector on a temporary basis has become a fairly widely used measure. However, the traditional concept of "public works" no longer applies. Such programmes have led to unsatisfactory results in several countries (such as Japan). The more recent programmes do not require major capital equipment and are designed at a decentralised level, leaving room for local intiatives. These programmes are similar to the previously discussed employment subsidies to the private sector. The similarity between both approaches becomes evident if one considers a public sector job creation programme as equivalent to a 100 per cent employment subsidy. Another area in which both types of measures are very similar is their targetability to workers with particular labour market problems. However, in other respects there are important differences. Private sector job creation via subsidies is an incentive policy. Whether or not private employers react positively to the incentive depends on a variety of other circumstances, including general and firm-specific demand prospects. Public sector programmes, on the other hand, do not depend on such market reactions and while there is a greater risk of "make work" arrangements the principal objective is the acquisition of work experience and preparation for permanent employment elsewhere.

As with employment subsidy programmes, the Secretariat has reviewed country experience in this area over the past years (OECD,1980e), suggesting the following conclusions for the countries concerned:

i) the number of jobs created amounted to 3 to 10 per cent (in one exceptional case to 26 per cent) of the total number of unemployed;
ii) they generally lacked a serious training element in terms of preparing workers for permanent employment opportunities;
iii) males dominated enrolments in the programmes;
iv) youth participated to a substantial extent;
v) the programmes were conceived as a bridge to more permanent employment, but the results were not, in all countries, encouraging;
vi) the jobs created produced useful community services; and
vii) the participants in the programmes were usually satisfied with the experience.

Public job creation, if it is to play a significant role in dealing with the structural element of unemployment in the medium term, needs a well defined long-term role. This suggests that the programmes should be designed as a bridge for the long-term unemployed to permanent employment in the public and private sectors. This requires the development of skill components of real value in securing jobs within a programme which provides socially useful community services, and thus justifies the expenditure of public resources. Temporary public job creation programmes can be seen as a useful supplement to programmes of job creation in the enterprise sector primarily designed to provide a transitional stage of skill acquisition for those unemployed, particularly youth, who are not adequately equipped for regular full-time employment. The additional cost of temporary public sector job creation may not be excessive as compared to income support for the unemployed. The justification is in weighing the additional cost over and above income support in terms of the capability of such programmes for preparing the long-term unemployed for better access to regular employment and thus removing them from continuing dependence on income support. However, the ability to transfer from a

temporary public sector job to a permanent private sector job depends on a variety of behavioural and institutional factors. Where such possibilities do not exist or are strongly reduced, the creation of temporary public sector jobs may lead to considerable political problems in the future given the efforts of many countries to reduce the size of the public sector.

e) The measures compared

In weighing the pros and cons of the different approaches to increasing employment it is useful to distinguish short-term and long-term impacts. The speed as well as the size of the employment response may be important; on the other hand, the longer-term structural effect may be emphasised over shorter-term or cyclical goals. While this evaluation focuses on employment, other criteria such as balance-of-payments and inflation effects would also need to be taken into account in selecting a policy method. Finally, it must be emphasized that the differential impact of these measures is likely to vary over the business cycle.

In terms of immediacy of impact on numbers employed, direct public sector job creation comes first followed by marginal employment subsidies, which will be dependent on speed of take up. No studies appear to be available comparing income tax cuts with payroll tax cuts, so evaluation is difficult. Where income tax cuts are concerned the reaction depends on the marginal propensity to consume out of disposable income and the speed with which output responds; the employment effect will then be a lagged and probably smaller proportionate response in terms of percentage increase in actual numbers employed (because some of the increase in output will come through an increase in hours worked per head). The time which this takes varies among countries and has been variously estimated at between 9 months and two years. A United States study (cited in OECD, 1978a, p. 62) found a small increase in employment in the first year (10 000 from a $1 billion programme) which tripled in the second year. A 1976 Canadian study (also cited in OECD, 1978a, p. 63) found a 0.3 per cent employment response in the fourth quarter after a $500 million programme, rising to 0.5 per cent in the eighth quarter. While a payroll tax cut immediately lowers the cost of labour to the firm, the employment impact is not necessarily immediate, depending on tax shifting and the firm's view of future prospects. However, even if the firm sees no point in expanding output, there may still be some delayed indirect impact on employment if the tax relief is used to lower the rate of increase in prices.

Another consideration is the amount of immediate leakage into channels other than new employment. Income tax cuts will go partly into savings while a marginal employment subsidy – and a payroll tax cut even more – are likely to involve a deadweight cost. They may all be shifted to some extent into wages or profits. Direct public sector job creation programmes often displace other fiscal expenditure particularly at the local community level. United States experience has shown that this type of fiscal displacement can be of considerable importance if no major administrative efforts are undertaken to prevent it.

Another British study and the United States study cited above show that public employment has a lower net cost per job created and a lower net cost to government than an income tax cut. Using budget deficit net cost as a criterion, a marginal employment subsidy is superior to a payroll tax cut (Layard and Nickell, 1980). No evidence on the relative impact of the various measures on the wage level and thus more delayed employment effects seems to be available but where wage/price links are strong the effect on inflation could be a rough indicator of this. Taking the "reasonable" assumption of the Layard and Nickell study of a fifty per cent pass-through into prices the impact on the rate of change of prices is very close for an average and a marginal

subsidy; both are probably superior to the other measures but there is as yet no direct evidence of this.

A final factor to be considered is the disemployment effect associated with the means of funding the employment measure, whether by reallocation of resources, a changed composition of or increase in taxation, or deficit finance, so that the net employment effect of the policy can be evaluated. However, this is a consideration which holds for all the measures discussed above and will not affect their ranking in terms of effectiveness. Finally, it has to be underlined that the most important criterion for judging the different measures must be the prevailing national circumstances. If, for instance, real labour costs have built up over time to an excessive level, this problem can probably only be overcome by measures which change the underlying structural relationships in the economy. A payroll-tax cut would recommend itself in this case even if a marginal employment subsidy might have more immediate, yet temporary, advantages.

2. AN EMPLOYMENT-ORIENTED INCOMES POLICY

The major constraint on demand and employment-stimulating policies is the persistence of inflation and the risk of accelerating inflationary expectations should a new expansion of output and employment occur. Some consideration could therefore be given to devising a policy which would help to inhibit the transmission of inflationary pressures. Furthermore, to the extent that the level of real wages is seen as the main factor sustaining unemployment, an incomes policy could also be an appropriate instrument.

There are three basic types of incomes policy which can be categorised as relying on controls, incentives or consensus. Experience with the first has generally led to the view that any gains tend to be very short term and to be dissipated or even reversed by efforts to catch up following the period of restraint. Although this approach may have some validity as a quick means of breaking inflationary expectations, it seems to be unsuitable for long-term application because it either freezes the existing structure of relativities, inhibiting adjustment to a more productive allocation of resources, or alternatively can approximate such changes only through the workings of complex administrative machinery.

The last mentioned – a consensus incomes policy – has proved effective in a small number of countries whose institutional and attitudinal structure permits the negotiation and also delivery of agreed wage norms in the context of common perceptions of the macro-economic situation. Centralised union and employer organisations can facilitate this process though it has also been observed that substantial wage drift at plant level may occur with such a structure. However, the preconditions for a consensual policy must be deeply rooted in individual countries' social, economic and political history.

The incentives-based incomes policy is a variant which has recently attracted attention in a number of countries. A number of versions has been discussed and tried. These range from wage/tax bargains where a decrease in tax burden is partially substituted for an increase in wages to wage/expenditure bargains, which substitute an increase in "social income" arising from government expenditure for wage income, and to a more specific focus on incentives through the tax system. Tax-based incomes policy (or TIP) has become the subject of extensive discussion. It entails tax penalties on employers who exceed wage guidelines and, in some versions, tax rewards or rebates for those who undercut them. If the policy were designed to relate not to individual but to

total wage bills, employers could still have scope to vary differentials within a prescribed rate of increase in overall wages, thus ameliorating the inflexibility which usually accompanies incomes policy. It could also be amended to include an employment objective, with specified tolerances for firms which exceed the guidelines if they can demonstrate an expansion in employment[50].

Employment trade-offs could also be exercised without any specific government incomes policy if employers and unions can agree, either at national level or firm or plant level, that wage increases will be moderated in return for guarantees of retention or expansion of existing employment levels, thus taking into account the interests of potential employees and those who may shortly become unemployed. In this sense, the approach is similar to that of redistributing working time between the employed and the unemployed.

In general, the desirability of holding costs, encouraging employment, and avoiding a recrudescence of inflation favours some consideration of an incomes policy, not as a substitute but as a complement to appropriate monetary and fiscal policy. There is experience in some countries with wage/tax and wage/expenditure bargains but they have disadvantages in terms of fiscal cost and also because they are likely to entail the loss of a fiscal instrument. By contrast, the TIP approach has hardly been tried and can be queried on its administrative costs. Nonetheless, some measure explicitly incorporating an employment objective with clear penalties for inflationary settlements may still warrant consideration.

A final note on non-wage labour costs can be added. Explicit restraint on wage income may merely deflect demand to other sources of real income; according to some, incomes policy is responsible for the proliferation of fringe benefits, improved pension and other social security provisions, redundancy agreements and so on. Without attempting to evaluate this view, it can be stated that this is not a necessary concomitant of an incomes policy; but it does point to the need to specify the remuneration in question more closely.

3. REDISTRIBUTING WORKING TIME

Measures by which, at any one time, a given amount of work is shared among more people imply a reduction in the total supply of labour. Firstly, there are those measures that result in longer periods out of the labour force such as earlier retirement, longer schooling, periods of retraining and other temporary or permanent withdrawals from the labour force. Secondly, measures that decrease the average hours worked (per week or year) include longer holidays, more parental leave, sabbaticals, restrictions on overtime work or multiple job holding, more part-time or short-time work, and reduced standard weekly hours. Among all these measures, the reduction of weekly working time as a means to create room for the hiring of new workers has obtained a prime place in the public discussion.

Historically, individual working time has decreased more or less regularly in most industrialised countries. Rising levels of real income not only lead to more demand for goods and services but also to more demand for leisure or other forms of non-working time. Thus, over the longer term and for the economy as a whole, the income effect of rising real earnings has usually outweighed the substitution effect, that is the fact that

50. For a further discussion of this issue see Layard (1981).

some individuals increase their supply of labour by substituting more work for leisure at rising real wage rates. However, over shorter periods of time, and in particular under present circumstances, the income effect may be less pronounced for a variety of reasons, such as uncertainties about future growth of real incomes and employment. Moreover, if productivity growth slows down, there is less scope for additional welfare to be taken out in the form of higher real incomes and/or more leisure. The preferred action of individuals might then be to use the additional welfare exclusively in the form of higher real incomes rather than in the form of more leisure time.

The crucial question then is whether individual choice could be tilted by public policy towards increased leisure rather than increased real incomes. If public policies to redistribute working time from the employed to the unemployed are not accompanied by a corresponding redistribution of incomes, within the available scope of the increased productivity (adjusted for changes in the terms of trade), inflationary pressures will build up and this ultimately will compel governments to reduce further the demand for goods and services and hence for labour. This is not to say that the scope for voluntary income/leisure trade-offs under present conditions of slow productivity growth and uncertainties about future development must be nil. Workers and their representatives might well be willing – on grounds of solidarity with the unemployed – to forego some real income (for instance, as a result of reduced overtime working) or at least real income increases, in exchange for more leisure time. On the other hand, in particular circumstances it might be more appropriate to use productivity gains for the restoration of profit margins. If this leads to additional investments, new jobs may be created. There could, however, also be gains in profitability by extending machine hours while at the same time reducing working hours per individual.

Studies have shown that individuals are prepared to forego some portion of their current income or their future pay rises for more leisure if they are offered more flexible patterns of work (OECD, 1982). However, the extent to which this transforms involuntary unemployment into voluntary non-working time depends not only on the numbers of persons willing to trade income for leisure and the proportion of income they are prepared to forego, but also on the number of new job seekers attracted by the greater flexibility in working hours, by the technical constraints on firms to use more or less rigid blocks of working time per individual and the extent to which the reduction in working time is compensated by increased productivity (instead of new hirings).

On the side of the demand for labour, the job creation potential of shorter and more flexible working time could be enhanced by a reduction in the burden of certain non-wage labour costs on firms. This measure could be desirable in its own right as a means of improving the functioning of labour markets. A more flexible use of working time would increase the potential of the labour market to adjust to structural change. However, a note of caution is required in relation to the introduction of flexible working time arrangements. These arrangements must be fully covered by the existing social legislation if the emergence of a secondary labour market with negative and marginal characteristics is to be avoided. In particular, the introduction of part-time jobs for women has to be carefully monitored by public authorities in order to avoid the emergence of a pool of cheap labour being used as a buffer to absorb short-term demand fluctuations and thus to improve the protection of the primary work force.

One potential problem associated with measures to redistribute working time is the possibility that, in the medium term, growth could be constrained and inflation fuelled by skill shortages if the occupations for which average working time is reduced are not those which are in excess supply. This points to the need to introduce such measures selectively through decentralised collective bargaining and together with other job creation and training schemes. In the longer term, there is considerable uncertainty as to labour requirements in the light of possible changes in technology, population growth,

social attitudes and labour force participation. Work-reducing measures should therefore permit some mechanism to increase individual working time if at a later date this becomes necessary on a temporary basis until the required adjustments through skill training are accomplished.

4. IMPROVED POLICY TARGETING

a) Group-specific targeting

A deeply entrenched characteristic of the unemployment facing OECD countries is the marked extent to which it is concentrated on particular well-defined groups in the labour force, in terms of the incidence, recurrence and duration of unemployment. Traditionally, the following groups are recognized as having special employment problems: youth, women, older workers, migrants, ethnic minorities. Over the past years, the Secretariat has given particular attention to the specific problems of these groups and to appropriate policy responses. Two High Level OECD Conferences were held, one on Youth Unemployment in 1977 (OECD, 1978b) and one on the Employment of Women in 1980 (OECD, 1980b). A Special Programme of Work on Youth Unemployment established by the Council in 1979 and the Working Party on the Role of Women in the Economy have followed up this work since then (OECD, 1980c, 1981a). The labour market aspects of migration in both sending and receiving countries and, more recently, the special problems of second generation migrants are regularly analysed and discussed by the Working Party on Migration (OECD, 1980d and SOPEMI Annual Reports). Some work has also been carried out on the elderly albeit with less emphasis on labour market and employment aspects (OECD, 1979c).

The results of this work are extensively documented and need not be repeated in the present report. The analysis presented in Part One part goes a step further by underlining an increasing polarisation and compounding of difficulties for particular sub-groups within these broader groups. This is most forcefully reflected in the rising incidence of long-term unemployment which affects all disadvantaged groups disproportionately.

The problem of how to specify the targets for action is at once more intricate as well as more serious than it was perceived to be in the last decade. Increasing macro-economic pressure on social expenditure has also underlined the need for effective and well-specified targeting. One line of approach is to highlight the extent to which the existing categories of disadvantage are useful on a group or general basis but not necessarily on an individual basis. The probability of unemployment may be higher for youth and for women but this does not mean that all youth and all women will experience unemployment or that the whole group warrants either preventive or remedial action. Simultaneously, competition also takes place within the group. Each disadvantaged group will have its own most disadvantaged members, the hardcore, who may sometimes represent the bulk of the manifested problem. Blanket measures may thus be wasting resources. By contrast, not all the unemployed fall into the groups labelled as having special labour market disadvantages. As unemployment worsens, it has tended to affect the prime-age male worker more severely in terms of both numbers and duration of unemployment.

It is useful to draw a distinction here between policies that are necessarily group-specific – laws on discrimination by race or sex are a good example – and those for which the group label is an approximate but not an inherently necessary aspect of the

problem or its solution. For instance, labour force re-entry for women is frequently assisted by retraining, but retraining is also helpful for male workers who have been trained in an obsolete skill or who have otherwise been dislocated in the labour market. It is the identification of the training need which is prima y. The distribution of access to training is then the next consideration and governments may wish to give preferential access to those groups most at risk of general social and economic disadvantage or, more specifically, labour market disadvantage. The latter can reasonably readily be identified from statistics on the incidence and duration of unemployment and the distribution of the labour force by skill type and income.

The characteristics of the problem and the relative priorities governments wish to strike will differ among countries. It is not the purpose of this discussion to prescribe a rank order for particular claims on public attention and resources, but to suggest a more closely focused look at the nature and gravity of problems so that policies and programmes can be made more efficient and effective within the constraints imposed by our economic difficulties.

That being said, what follows constitutes an example of the kind of approach advocated. First, identify the common core of problems shared by all those most disadvantaged in the labour market. These can probably be summarised as:

- lack of adaptability in the labour market; (for instance no or obsolete work experience, low or obsolete skills);
- discrimination by employers;
- poverty, social dislocation and alienation.

Second, draw up a programme appropriate to the different levels of the problem. For instance, public education and intervention with individual employers with regard to discrimination, if necessary backed by law; revision of the income maintenance and other provisions aimed at enabling the unemployed (particularly the long-term unemployed) to continue to function as members of the society; and action at the level of unemployed individuals. Here selectivity will be important if attention to the hardcore is the aim. Assume that long-term unemployment is taken as the indicator of severest disadvantage, and that it is believed to harm some groups more rapidly than others. A recall system could then be instituted which triggered special attention for an individual after he or she had been unemployed for the time specified for the group to which the person belongs: say, four months for a prime-age worker, three months for a young person, but 2½ months if the young person is female and/or migrant. At that stage, the appropriate action could be delivered, whether a work experience programme, training, counselling, or priority in placement efforts.

Such an explicit ordering of social priorities could be impossible to establish or may prove too costly to administer, in which case the trigger system could work simply in terms of duration of unemployment. The extent of the persons' needs might then effectively help to attract the appropriate amount of resources in their direction, as long as the administrative authorities responded sensitively. The administrative costs of such an approach should not be underrated. Experience in a number of countries suggests that public employment programmes are now being designed so as to meet needs more closely, but that administrative capacity has not always followed suit. This means people are failing to be placed in appropriate programmes because there are simply not enough staff to cope.

This approach requires not only identification of those most in need of assistance, but also clarification of how intervention is going to relate to the better functioning of the labour market and increased employment. Training is probably the most obvious need, but training in what? The least skilled and most disadvantaged are likely to need basic skills and work experience courses. They will also need intensive counselling and remedial care and help to overcome any personal handicaps and to give them a

minimum level of capacity to function in the labour market. But above that level governments may need to identify growth industries and provide appropriate broad-based training skills which can easily be adapted to changing needs. Where trends – for instance in information science – are already well defined, the exercise will be less chancy.

This may come uncomfortably close to "picking winners" and to a more dirigiste approach than some can accept. A more market-oriented method may be to offer finance to employers who devise and provide their own training programmes, leaving the choice of direction to them. However, the scale of the problem is now such that this alone may not be enough.

Another aspect of lack of adaptability in the labour market is lack of resources for search and movement. Thus, another part of the programme may be assistance with relocation: travelling expenses for job search elsewhere, removal costs, and rehousing finance. No doubt, there will be other measures specific to countries.

This approach offers nothing that is new in substance, only a change of focus. It should not be regarded as a total replacement for group-specific programmes, but perhaps as a suggestion that a partial redirection of resources could be appropriate and may become essential given the size of the problem and the constraints on public finance. Because established social policies and expenditure programmes acquire a momentum of their own, any change of direction will require a substantial political effort.

b) Regional and sectoral targeting

Though not documented in the previous sections the incidence of unemployment also varies across regions and local labour markets. Regional and local labour market conditions in turn are determined by industrial employment patterns. Several industrial branches with strong regional concentration (textiles, ship-building, steel) were hit particularly hard during the recession. This has often led to extremely severe labour market effects in mono-industrial areas where no alternative job opportunities are available. Governments, therefore, have developed comprehensive policy strategies in concert with trade unions and industrialists to prevent, alleviate and remedy major employment dislocations of this kind.

Parts of these strategies consist, of course, in raising the demand for labour in local areas by applying one or several instruments discussed earlier, for example a temporary and locally targeted cut in payroll tax, average or marginal employment subsidies for specified regions, public sector job creation and retraining programmes. Often these measures have been incorporated into an industrial and regional policy strategy. While, so far, the main thrust of abrupt structural changes seems to have originated in shifts of international trade patterns, notably with newly industrialised countries,
significant structural change in the future will be predominantly triggered off by new technologies and shifts in energy prices. A coherent set of industrial, technological and energy policies will therefore be required to cope with regional development problems in general and regional employment problems in particular. In this context, it is recalled that measures to promote geographical labour mobility have been and are likely to remain constrained by strong resistance from individuals against leaving the region where they have become rooted. "Bringing jobs to people" may thus need to be a focus of regional and industrial policies dealing with the problems of industrial relocation. The major contribution of labour market policies in assisting regional, industrial and energy policies will be in the area of skill training.

One particular form of employment stimulation in a regional and sectoral context is the encouragement of small enterprises on the grounds that they are more labour intensive, more able to take advantage of innovative technological change and more

adaptable to changes in demand. It is true that in the process of technical change, labour shedding may be more pronounced in big enterprises which switch to new products or production lines, whereas small firms will more often go out of business and will be replaced by new firms. Thus, for purely statistical reasons, new jobs will show up to a considerable extent in (newly created) small firms. Another factor may be the decline in the manufacturing sector relative to the service sector which has occurred in a number of OECD countries. As the economic scale of production tends to be larger and less rapidly adjustable to change in industry than in services, and services tend to be more labour intensive, the relative shift will by definition produce consequences which suggest that small business is especially conductive to employment creation. Growth in services will produce growth in smaller units, and new employment opportunities will show up in the statistics as occurring in these smaller units.

In all Member countries small and medium-size businesses (SMBs) are responsible for a large part of value added, investment and employment. Thus in the manufacturing industry sector, in the mid-1970s, the majority of wage earners – from 40 to 70 per cent depending on the country – were employed in establishments of fewer than 500 persons (OECD, 1981d). In some activities (for instance, textiles, wood products, plastics, food processing) these proportions were of the order of 60 to 90 per cent. During recent years these proportions seem to have grown, although the statistics are incomplete and not always strictly comparable. The wage and non-wage earning staff of small enterprises (fewer than 10 employees) alone ensured the growth of employment. As much in industry as in services jobs created in SMBs compensated for the disappearance of jobs in the big establishments. An MIT (Massachusetts Institute of Technology) research project showed that in the United States in the period 1969-1976 two-thirds of the jobs created originated in businesses of fewer than 20 employees and 82 per cent in businesses of fewer than 100 employees. Moreover, these enterprises only represented 40 per cent of people employed in 1977 (Birch, 1979). However, these enterprises are very precarious; their failure rate is very high (though it seems that those that survive record strong growth in numbers employed). Furthermore, the MIT investigation shows that the jobs tend to be second-rate, with low pay and poor security of tenure. The results of the inquiry have been confirmed by more recent studies (Tietz, 1981).

The growth of jobs in small businesses has many causes. For purely statistical reasons, a higher proportion of new jobs appear in small enterprises because they are of recent origin; the change in employment structure characterised by a fall in employment in the more highly concentrated industrial sector and by growth in jobs in the relatively more dispersed service sector helps to explain this trend. Yet even the countries affected by de-industrialisation record an increase in the number of small and medium industrial firms as well as a recovery in independent craftwork. One possible explanation can be sought in the modification of productive structures. There is a tendency to set up more flexible and less concentrated structures which permit big enterprises to transfer operations (both manufacturing and services) either to small sub-contracting units or to subsidiaries created for the purpose. Small businesses may possibly be better adapted than large ones to times of economic difficulty if they have more flexible structures and are less risk averse. They may thus respond more rapidly to new demands, exploit new technology and new ideas, and move into new and risky markets. However, since the end of 1979, the general increase in interest rates and restrictive credit policies must have been unfavourable to the development of small and medium-sized businesses.

These observations do not permit the conclusion that encouraging small firms will automatically lead to more jobs. The result may simply be that an equivalent number of jobs disappear with more firms going bankrupt, and that the increased turnover of small firms with short lives leads to further marginalisation of some members of the labour force. A trade-off between recorded unemployment and more casual jobs would not be an advisable policy option. The method of encouragement may also have adverse effects

if it involves large reductions in fiscal charges which must be recouped elsewhere, or exemption from safety or other regulations, for example those concerning the minimum wage. A policy which granted aid to employment on the sole criterion of the size of business would risk being costly and ineffective if only a small amount of aid resulted in lasting jobs.

However, this is not an argument for discouraging small businesses either: it is perhaps a note of caution on the wisdom of intervening directly in the economic structure when causes and consequences are not entirely clear. It could be of more value to small businesses and to the economy as a whole if distortions were minimised so that they were free of regulatory inhibitions on their activities and had equal access to markets, including capital markets. If new information technology, for instance, makes it possible to establish small enterprises in rural areas and labour surplus areas, the removal of any impediments to the creation of such firms would be beneficial. Another form of assistance could be the creation of local and regional networks providing entrepreneurs with information and training in management and in new techniques. In this context, it is also worth noting that small firms are usually the first casualties of tightening credit markets (especially if they are sub-contractors) and that under such conditions other forms of aid are likely to be frustrated. On the other hand, encouragement to small businesses which took the form of promoting more flexible and efficient capital markets could well be appropriate in an atmosphere of monetary restraint. Easier access to capital markets and the creation of mechanisms of guarantee, surety or insurance for investors against the risk of bankruptcy could encourage more capital participation in small businesses.

Some of the interest in promoting small business may be associated with political values such as respect for the individual and dislike of large monolithic structures. This is a valid approach in its own terms and it may be worth remembering that large organisations may also involve a loss of economic welfare if they operate in monopolistic markets. However, the conclusion is related to the degree of competition in the economy, rather than the size of the firm per se.

A more interventionist approach (compared with what seems appropriate with regard to the encouragement of small firms) may be in order in the area of technological policy. In any given state of the art firms have a range of techniques available to them which normally entail a range of capital-labour ratios. The relative prices of capital, labour, energy and materials will determine the choice of technique, together with the amount of experience accumulated with the use of any particular technique. When relative factor prices change, firms may innovate (try new techniques) or may even seek to invent – to find new technologies altogether. Governments frequently assist by funding research and development efforts. The emphasis in the past has been mainly on increasingly sophisticated capital technologies, frequently replacing labour: for instance, the robot which can replace the labour force of a small factory leaving only a few persons to design operations. Governments could change direction by channelling funds towards the search for technologies which save the use of other factors of production without displacing people. The impetus given by shocks in energy prices could provide a new emphasis through substitution between labour and energy.

Chapter VI

RECONCILING EFFICIENCY AND EQUITY IN THE LABOUR MARKET

The policy concepts discussed so far are directed at raising the demand for labour overall or at tilting employment opportunities to those groups or areas where imbalances are particularly severe. From this discussion it has already become evident that equity considerations and notions of social justice have to be carefully weighed in designing appropriate policies of this kind. Such considerations become even more important in discussing labour market adjustments to economic change. Since labour markets are only tenuously comparable to product markets the notions of market clearing and allocative efficiency are different in the two cases. Short-term labour market adjustments in a purely economic sense, if associated with a major erosion of achieved social standards, may well entail negative effects for longer-run economic efficiency. However, on the other hand, attempts to maintain a given level (or trend) of social standards in a harsher economic environment may contribute to reduced economic performance. Since the interrelationships between social and economic achievements are complex, the question to be asked therefore is: How can efficiency and equity be reconciled given

i) the need for significant structural change in the future (examples: changing energy prices, trade patterns, new technologies);

ii) the pressure on public resources due to slow growth and persistent deficits, and

iii) the need for a highly productive and adaptable labour force to contribute to non-inflationary growth.

In the following discussion the first two policy areas – vocational education and training and the public employment service – are particularly apt in that they respond to the efficiency and equity requirements simultaneously. Raising the productivity of workers (through skill training, counselling, information, etc.) increases their competitive edge in the labour market and improves their income stream over the life cycle. At the same time it represents an investment by society in the capacity of the work force to adjust to structural change and contribute to future economic growth. In the three following areas – external and internal labour market mobility, international migration and social policies affecting the labour market – it is less easy to find solutions which will foster equity and efficiency simultaneously. Potential conflict between the two will have to be analysed and policies designed which seek to balance the two aspects.

1. VOCATIONAL EDUCATION AND TRAINING

OECD Member countries have developed different models of vocational education and training. The highly structured and comprehensive system of apprenticeship training in some countries, such as Germany, contrasts sharply with the widespread and deeply entrenched system of informal on-the-job training in others, like the United States (OECD, 1981a). Yet both countries are similar in that they place great importance on the involvement of firms in the process of skill training. Other countries like Belgium, France and Sweden place more emphasis on school-based training. Vocational training credentials (Germany), trade union control over access to training (United Kingdom), occupational boundaries (United Kingdom) inhibit the development of internal labour markets, whereas the opposite characteristics – employers' discretionary power over job redeployment (Japan) and on-the-job retraining (United States) – lead to the emergence of flexible internal labour markets. A further aspect which seems to vary strongly between countries is the financing of vocational education and training. Further work will be required to analyse which national systems respond best to the future needs of structural change, growth and labour market trends. This is currently being undertaken by the OECD Working Party on Vocational Education and Training. The following are some selected issues of relevance for the design of future vocational education and training programmes.

Traditionally, initial training has been the main responsibility of public authorities whether provided in the class-room or through close public control of apprenticeships. Further training or adult training has occurred on-the-job as part of normal career development. This dichotomy between public and private sector responsibilities has changed dramatically and in some circumstances is being reversed for reasons related to structural change on the one hand and widespread unemployment on the other. Initial training needs to be related to the diverse and changing needs of employers, which could be seen as giving impetus to a changeover to firm-based initial training. However, despite the growing importance of internal labour markets, private employers differ in their readiness to provide initial training; even where they do provide it, public control needs to be exercised to ensure that the training is sufficiently broad and that non-transferable firm-specific training does not become dominant. At the same time adult training and retraining is falling more into the public arena because individuals lose their access to firm-based training when they lose their jobs and, even when they keep them, may find that their firm is unable to finance training or regards the return on the investment as too uncertain. Furthermore, the long time lags involved in industrial restructuring often go beyond the interest and responsibility of individual firms.

Given that skill training normally has to last individuals for a number of years and that the future skill requirements arising from structural change are hard to foresee, it is extremely unlikely that the demand for and supply of skills will ever match completely. It is also unlikely that the situation can be completely reliably monitored as unfilled vacancies and apparent skill shortages are not wholly accurate indicators of real needs. In the circumstances the main emphasis needs to be on facilitating mobility and adaptability, as training institutions in many countries recognise. On-the-job training in internalised labour markets can be a means of rapid adaptation since shifts in product demand or new technical skills can often be quickly incorporated in the training provided, but as noted earlier the training may result in the acquisition of non-transferable skills. This can have severe consequences in periods of low demand when large-scale dismissals and bankruptcies occur. Thus, while accepting the advantages of on-the-job training, governments should seek to ensure that it is broadly based so that individuals can build upon it if they have to adjust to new tasks, skills, enterprises and

industries. Governments will also need to consider providing incentives to maintain on-the-job training which might otherwise decline or disappear in periods of economic slack. Evidence so far indicates that there is now a trend towards under-investment in training at the enterprise level.

However, the major emphasis at times of large scale unemployment is on public retraining programmes. These face the major difficulty of attempting to identify what skills will be required in the future. This problem is eased if regional and industrial strategies are devised which can provide guidance for the design of retraining courses and to which manpower authorities can contribute by providing the required skills. There may be other channels of information which could assist in the design of public training and retraining courses. In Germany, for instance, the Federal Employment Office provides funds for retraining courses on the basis of information from local employment offices about the proportion of participants in previous courses who obtained jobs. Another possibility would be to extend already existing requirements for making an environmental impact statement on major investment projects to include the employment and skill implications of the project. More generally, the importance of local level arrangements for training might be more fully recognised.

The most important considerations in the design of future training courses may be the shift in production and demand patterns resulting from the rise in the real price of energy and the introduction of new technology, in particular micro-electronics. Although relatively few new occupations associated with micro-electronics have yet emerged, it is having a revolutionary impact through its widespread application and the change it entails in skill requirements. Thus training in the new technologies should preferably become a significant element in initial training, drawing upon several skills. This is already recognised in many countries where training in the use of computers is included in the curricula of most technical or even general secondary schools. In public retraining programmes, including those for the unemployed, it should also become an important element in order to permit adult trainees to compete in the labour market and to permit them to participate actively in the process of economic change.

2. PUBLIC EMPLOYMENT SERVICE

The twin goals of efficiency and equity in the labour market can also be pursued by a vigorous extension and strengthening of the public employment services. There are two models according to which the service can be designed and its existing structure reoriented and focused. They are complementary rather than contradictory and a comprehensive service contains elements of both; nevertheless, they represent different ideas of the role of the service and for progress to be made they need to be combined without being confused. First, the service may concentrate its effort on performing the elementary placing operation as quickly and efficiently as possible. By increasing the amount of data about job vacancies and job applicants in circulation, and facilitating their exposure to one another, it widens the opportunity for rational choice by both employer and worker and reduces frictional delay in recruitment. The exercise of choice – whether to hire the worker or to accept the job – is left to the employer and the worker, on the assumption that they know best what they want. Applicants are encouraged to help themselves from vacancy displays and contact with employers is limited to encouraging them to notify their vacancies. This is similar to a commercial operation and requires a commercial type of input – publicity, salesmanship, attractive premises, flexible procedures, modern equipment for rapid processing (telex, computerised job

banks), abundant facilities for self-service on the part of the clientèle. It needs dynamic management and the kind of staff who can receive customers and operate the equipment but do not require any great depth of understanding of labour market processes.

The advantage of this first orientation is that it is a straightforward method of achieving a defined objective increasing the total mutual exposure of information about job applicants and job vacancies – with economy and efficiency. The service does not accept responsibility for the wisdom of the hiring decisions made and does not need to devote resources to this aspect. On the other hand – in contrast to private employment agencies – the service can attempt to cover all sections of the market without concerning itself with questions of profitability and can exploit to the full its nationwide dimension. The disadvantages, however, stem from the fact that the service cannot escape certain public responsibilities. In practice it is always required to devote special attention to the employment problems of the disadvantaged (handicapped, underqualified, long-term unemployed, etc.) and frequently to exercise some minimum degree of control over the availability and capability for work of unemployment benefit claimants. Moreover, its geographically extensive network of offices usually identifies the service as an appropriate vehicle for the delivery of specific manpower programmes and for the supply to policy-makers of qualitative and quantitative labour market information originating at local and regional level. It may prove difficult to reconcile what are primarily social objectives with the prime aim of simply facilitating the efficient operation of the labour market and, without closer contact with employers and job applicants, the implementation of certain policies and the collection of certain kinds of information may be almost impossible to effect at all.

The second orientation, on the other hand, is that of intervention in depth rather than in breadth. It is based on the idea that the labour market needs support to achieve economic and particularly social objectives. It is not sufficient to assume that the opportunity for rational choice will in fact lead to rational choice being exercised, because the motivations which cause people to seek or to accept a particular job are complex and, on the employer side, recruitment policies are frequently under-developed or not well implemented or reflect discriminatory behaviour. Therefore the service has the function of influencing the behaviour of the parties rather than merely responding to them.

The traditional registration of the job seeker, accompanied by an interview, is the simplest form of such action, in that it involves an element of counselling. Similarly, on the employer side, the reception of the job vacancy, with questioning about the details of the offer (perhaps by visit), is an initial step towards an input by the service. This kind of intervention may be pursued in some depth: the job applicant may be counselled, given vocational guidance (including psychological testing) and careers advice: the employer may be interviewed to examine the vacancies he has notified, to discover what other labour needs he may have and to assess his recruitment practices. It will be observed that as the process goes deeper its emphasis becomes less and less concerned with immediate placement. This second orientation does not necessarily require expensive premises or equipment, but it is essential to have staff with the appropriate personal qualities, educational standard and professional qualifications. The advantages and disadvantages of this orientation are in many respects the converse of the first. The establishment of deeper relationships with employers and job applicants enables policies to be implemented and information – especially qualitative information – acquired. Moreover, the process is cumulative: experience leads to expertise which can in turn be put at the disposal of the clientèle. On the other hand, the procedures are demanding in terms of staff resources and without great expenditure could not cover large areas of the market, for which it might be claimed in any case that such elaborate treatment was unnecessary. Finally, in presuming to modify the behaviour of the agents in the market the service assumes a considerable responsibility towards them.

Thus, these orientations reflect different approaches to the way the labour market works and require a different outlay of resources for successful performance. They have been contrasted here for explanatory purposes. A fully comprehensive service could follow the first orientation for general coverage of the market, supported by action of the second kind for the intensive treatment of difficult cases and areas of mismatch and for the cultivation of that expertise in the realities of employer and worker behaviour which is necessary for the implementation of policies and the collection of labour market information. In practice it is unlikely, at a time of budgetary stringency, that a country will be able to develop its employment service equally in both senses: some choice of priorities will have to be made and if a satisfactory combination of the two models is to be achieved, particularly with limited resources, it is important that their characteristics should be carefully distinguished.

3. EXTERNAL AND INTERNAL LABOUR MARKET MOBILITY

The earlier analysis of trends in job security provisions in OECD countries has highlighted three points:

- The past rise of internal labour markets, closely related to the growing importance of on-the-job training, has contributed to flexibility and adaptability to economic change. Reallocation and redeployment of human resources within the enterprise became the mode of adjustment preferred by both workers and employers. Such job security is the condition for the provision of work-place training to newcomers and the acceptance of technological change.
- The subsequent extension of compulsory legislation and central collective agreements on job security, redundancy pay, prior notification of dismissals, etc., was mainly intended to cover the sectors (small enterprises) and the groups of workers (unskilled, peripheral workers) who did not profit from internal labour market practices. This has reduced management prerogatives and increased non-wage labour costs.
- As a result of the above developments, new types of manpower utilisation have evolved to accommodate internal labour market practices and to overcome the rigidities introduced by restrictive legislation and collective bargaining provisions. This has increased the segmentation between a protected work force in permanent employment and an unprotected work force which has to carry the brunt of adjustment costs via external mobility, high labour turnover, and frequent spells of unemployment.

It was also emphasised that in the long term, a growing segmentation of this nature would be counterproductive on both social and economic grounds. On the other hand, in terms of policy, it would be equally counterproductive to try to dismantle internal labour markets. Their positive contributions to socially acceptable adjustments to structural change are extremely important. In this context, it is useful to recall that the OECD country with the most internalised labour market, Japan, has the best record in adjusting to the new circumstances dictated by the two energy price shocks and the generalised economic slow-down during the 1970s. It is more important and urgent to assist workers in the secondary labour market although this, in the short run, may imply higher costs to enterprises or the public purse.

It may become necessary, for instance, to introduce targeted recruitment subsidies in favour of disadvantaged groups in the labour market or to establish employment quotas. Recruitment subsidies were discussed earlier. The establishment of employment

quotas is already done for handicapped workers in some countries, though usually only when the establishment is large (whether government department or private firm). This is a reasonable modification, as it is in any case small units which bear more of the costs of adjustment and often exist closer to the margin of bankruptcy, while large firms reap the benefit of a more specialised and flexible internal labour market in which it should be easier to fit quota employees, and they also tend to have greater financial stability. Since these internal markets are a principal source of exclusion of marginal workers, it is only appropriate to see them as a vehicle of integration.

Generai legislation against discrimination with provision for formal redress may well also be required to provide a context and some basic limits for negotiation and labour market practice. While blatant and direct discriminatin may now be less noticeable, the figures on the distribution of incomes, occupations and unemployment reveal that selective employment practices, if not discrimination, by race, age, sex, marital status and, in some countries, religion, are still characteristic of labour markets. If comparable statistics on access to job security were also available, they would doubtless underline that conclusion.

The ideal solution would be to reduce the disadvantage of internal labour markets, that is their built-in impediments to external mobility, without sacrificing their principal advantage, that of providing workers with job security in return for acceptance of change. It is probably not realistic to expect hard-won rights and privileges to be renounced, so a simple reversal of existing provisions may not be feasible, depending to some extent on the law and institutions of the country. However, some progress could perhaps be made towards transferability of rights (such as seniority rights, pension entitlements) between firms and towards the provision of training that was not solely specific to the firm. Greater ease of transfer for workers could lessen the pressure for established rights within internal labour markets and could open up opportunities for workers outside these markets. How this should be accomplished will vary with the country concerned.

Public or tripartite control over initial on-the-job training has already been referred to. This control could help assure higher agreed training standards, thus giving individuals a minimum amount of transferable skills. Initial class-room training should be designed with the deliberate intention of providing basic knowledge which could be used and further developed in several directions. Training in the use of keyboards, computer language and programming are good examples. The extension of adult training and retraining as well as a broad choice of further training or "continuous training" like the systems developed in Sweden, France and Germany are further positive examples. These systems should be a complement (not an alternative) to firm-specific training, thus reducing the risks to workers who become unemployed and increasing incentives for those who wish to change jobs.

Transferability of rights could be more difficult to achieve, though it occurs already in some white-collar occupations. One field in which it is particularly important is that of pensions. Especially when many years' service has been accumulated, the inability to transfer pension rights is a considerable source of rigidity. Movement towards a universal system could help here, together with the establishment of some kind of centre which pooled and exchanged rights. This would assist in geographical as well as occupational mobility. Other measures encouraging mobility are rehousing, job search and relocation subsidies which could help take pressure off firms' internal markets, possibly at minimal net cost to government.

The problem of high non-wage labour costs to employers could be approached by the transfer of funding of social security from firm-specific to general taxation. Again, the scope for this will vary between countries. Some costs could be reduced if the external environment improved: for instance, redundancy settlements could be lowered

if training and relocation provisions were readily available and economic prospects were better in general.

4. INTERNATIONAL MIGRATION

Before the onset of the 1973/74 recession, an important degree of flexibility was achieved in some of the most highly industrialised countries by allowing a more or less permanent flow of migrant workers into the areas and occupations where there was a shortage of labour. The usually documented net inflows were in fact much lower than the gross flows. Thus, given a relative high turnover of migrant workers, the receiving countries could easily direct the gross inflows to shifting areas of need.

With the substantial reduction of new entries after 1974, particularly in European countries, this source of flexibility has largely dried up. Some movements continue to take place, however, in response to particular demands. Experience has shown that the opportunities for substitution between foreign and national manpower are rather limited, at least in the short term. Foreign workers (certainly the first generation, but to a large degree those of the second generation also) continue (i) to hold jobs refused by national labour, (ii) to perform services which the national market is unable to provide, and (iii) to form a reserve supply for future unforeseen demand. Although the balance of flows is low in terms of absolute numbers, the stock of the foreign population and labour force continues to increase as a consequence of family reunions and natural growth, with higher proportions of young people and female workers of foreign origin entering the labour markets. This trend is likely to be reinforced in the years to come and is one of the reaons why the countries concerned are strengthening their effort towards the social and economic integration of these groups. Certain countries already have a tradition of integration, usually through naturalisation. This tradition is now being strengthened and educational, cultural and even enfranchisement programmes are being pursued for those who remain foreigners. Other measures include new legislation to improve the security of longer-term residents and the access of family members to the labour market. A similar process can be observed in other countries for which integration represents a change in concept and policy. There is also a growing understanding that many of the problems of integration may persist where the migrant is a citizen of the host country, either on arrival or after naturalisation, and certain countries are taking positive action accordingly.

So far, the number of returns to the home countries has not increased dramatically. Clearly a wave of unexpected returns would add to the already precarious situation of the emigration countries and plunge the more disadvantaged regions into a state of lasting under-development. There is therefore a need for increased international co-operation between the two groups of countries within the OECD area. This is even more important if one considers that migration flows have been accompanied by significant capital movements in the opposite direction through the remittances of workers' savings and of social transfers (such as family allowances or pension rights) which have had a crucial role in the balance of payments in recent years.

Governmental action has been mainly unilateral; thus, all the emigration countries have encouraged the remittance of migrants' savings, for instance by allowing accounts to be maintained in foreign currencies or by granting favourable interest rates in the home currency. There has also been a certain amount of bilateral action, particularly in the area of education and training with a view to return (France-Portugal, Spain-Germany and Switzerland); Yugoslavia has developed a well-defined policy of

collaboration with Germany and Sweden, including the creation of a special fund designed to utilise for industrial development both internal sources of finance and also those coming from abroad, and the Netherlands has carried out an important development research programme in Turkey. Also, the Turkish "worker companies" in Germany, although private institutions, have received considerable support from the federal government after a bilateral agreement between the two governments. A similar agreement has recently been negotiated between the federal government and Greece.

With the decline of emigration, the problems of many later-industrialising OECD Member countries have further deteriorated and the question arises whether appropriate labour market and related policies could be implemented to contribute to solving the particular problems of these countries. OECD work on the later-industrialising countries has indeed shown the need for attacking a number of structural problems without which employment and labour market conditions would not improve even if higher rates of growth could be achieved. Structurally-oriented policies are required in many of these countries to cope with the problems of under-employment in rural areas as well as with marginal and unrecorded employment in urban areas. The maintenance of a regional, and in particular a rural-urban, balance is highly important for the smooth adjustment to higher levels of industrialisation. Special efforts are required to help the integration of female workers. Finally, educational and training policies have to be adjusted to the special circumstances and requirements of these countries.

5. SOCIAL POLICIES AND LABOUR MARKET EFFICIENCY

The financing of social expenditure has come under severe pressure, first of all due to the slowdown of economic growth and a reduced revenue base, but also for a variety of other reasons. The ageing of the population, an unfavourable shift in the ratio of contributors to beneficiaries in funded insurance systems, public resistance to higher levels of taxation, price indexation of transfer payments, built-in stabilisers (mainly unemployment compensation) which increase expenditure requirements in the face of reduced growth: all these factors have contributed to a situation which some observers call "the crisis of the Welfare State". (OECD, 1981b).

At the same time, the achieved levels of social protection are often cited as a major impediment to the return of output and employment to non-inflationary growth over the medium term. Sustained growth can only occur if factors of production are flexible enough to flow freely to new investment opportunities, new locations and new skills, and if factor prices respond quickly to changes in demand. It is sometimes argued that this desirable flexibility is seriously impeded by generous social protection of incomes and jobs, such as unemployment compensation, redundancy payments, pension rights, etc. Moreover, the financing of these social programmes is sometimes seen as draining resources away from the private sector with negative consequences for private investment.

However, it would be one-sided to ignore the fact that social programmes provide public goods which reflect social values about the rights and welfare of members of society. Most social expenditure also has an investment character in the real economic sense. A basically healthy, secure and educated population is a sine qua non of production and efficiency in a complicated technological society. Thus, the apparent dichotomy between social and economic goals in a global and unqualified form can be set aside. A meaningful analysis requires examination of the particular role, methods of

delivery and impact of each of the wide range of policies and programmes which make up social provisions in a national context so that the right balance can be sought for each. Two social policy areas which are frequently quoted as impinging on labour market efficiency are unemployment compensation systems and minimum wage legislation. In Chapter III, research results on there two areas have been presented. These results can be complemented by the following policy considerations.

Unemployment compensation has a positive social and economic role in that it supports people after the loss of earned income and enables them to search for a suitable job, thus promoting labour market adjustment. However, four types of problem have emerged.

a) Where entitlements are exhaustible and are linked to past contributions or to previous time spent in the labour force, provision may be inadequate or non-existent. For instance, school-leavers, married women re-entrants, or those whose work history has been affected by illness or previous spells of unemployment will not have adequate cover. Alternative or supplementary systems would then need to be used.

b) A system designed to sustain people for relatively brief periods out of work is not sufficient to maintain their skills and confidence when unemployment is prolonged. Simply financing job search is now not enough to achieve labour market adjustment.

c) The increase in numbers unemployed and in duration of unemployment have swollen expenditure on unemployment compensation. This tendency, exacerbated by lack of buoyancy on the revenue side because of restricted income and sales, has resulted in pressure on deficits, stimulating a search for reductions in expenditure and/or an increase in the economic return on such expenditure.

d) Improvement in unemployment compensation systems has increased the disincentive to take work, though this effect is less when the worker is not indifferent to the source of his income, that is when there are psychic costs associated with unemployment. Secondly, it is also argued that unemployment compensation prolongs job search by reducing the costs of search relative to the expected benefits. (On the other hand, if the increased search activity pays off in terms of a better match between jobs and people, lower future unemployment and higher productivity should result.) Thirdly, people may take work temporarily in order to qualify for benefits. Econometric work in Member countries reported on in Chapter III supports the view that all these effects exist, though in varying small degrees.

Corresponding reforms could take the following lines:

i) An unemployment benefit system related to current need rather than past contributions, with non-exhaustible payments; could be introduced. This would mean a movement towards general revenue or some other form of financing (which might not be considered politically feasible in countries which emphasize the funded insurance principle strongly). Such a system could be designed so as to provide lower replacement ratios for those who now do best out of the system and more adequate support for those whose foothold in the labour market is less secure. Marginal members of the labour force could then be less likely to drop out and suffer alienation, and some progress could be made towards reducing segmentation and promoting more flexible labour markets. Transitional problems could be eased by giving those with the longest record of contributions their entitlement under the old system, up to a certain cut-off after which the new system was used.

ii) People suffering prolonged unemployment need more than basic financial support to maintain them as integrated members of the labour force. A recall system could be instituted so that after a certain period people enter a priority list for the receipt of counselling, placement services, attention to their training needs, allowances for job search further afield and relocation if successful. This would have administrative and subsidy costs but would provide social benefits and also economic ones through maintaining a more skilled and flexible labour force for future expansion.

iii) The problems outlined under *c)* and *d)* above could be approached in a variety of ways. Payment costs could possibly be cut by prolonging the waiting period or lowering replacement ratios, which could help to finance support for those who are more disadvantaged compared with members of the primary labour force who are usually unemployed for shorter periods. Payments could be made taxable so as to remove inequities between those wholly in work and those on similar incomes who have experienced short or seasonal spells of unemployment. This would also require grossing up of benefits so that those with no other source of income over the year received the same net income.

iv) The social and economic return on unemployment compensation expenditure could be increased by using it to finance training, retraining or community work. Young people could receive on-the-job training with subsidised pay or work-experience courses on appropriate allowances. Unemployment compensation expenditure could be directed to subsidising more of those in work, rather than supporting them in unemployment.

All the above measures would also reduce any disincentive aspects of unemployment compensation.

Minimum wage provisions have their origin in social policy rather than labour market policy. Coverage is universal in some Member countries but is partial in most. If the aim were only to meet needs, the minimum wage could be replaced by a unified tax/transfer system (such as negative income tax), but in the absence of such systems, and given the separate aim of providing a wage that, however low, entails a margin over social assistance, the minimum wage is difficult to discard. At the same time, however, it tends to penalise those who are most likely to be in need.

The extent of the distortion it produces is subject to debate and to a good deal of econometric investigation. The incidence of cost depends on the degree of forward shifting into prices. Without such shifting, employment for labour market entrants and the low-skilled will be negatively affected. The adverse impact is likely to be greater in periods of recession when the minimum wage may prevent downward adjustment of wage structures than during expansion when it is likely to lag, not precede, positive wage adjustment.

Policies which can ameliorate the negative aspects of the minimum wage have been introduced in some Member countries. They include:

i) Age differentials, in particular lower youth rates. These phase out with age or time spent in employment.

ii) Industry differentials, negotiated between labour and management, which can take account of sectoral differences in degrees of monopoly or productivity.

iii) Failure to adjust or index the minimum wage under inflation. This can reduce its real level if it is felt that the level is impeding employment growth or is inducing an inflationary effect on the overall wage structure. Here it is worth noting that the dispersion of the wage structure, or the distance of the

minimum from the average wage, may be more significant than the existence of the minimum wage itself.

Introduction of a youth differential, if none exists already, could well be the most positive policy option in this field now open to governments, particularly as youth unemployment rates generally exceed the average so markedly and young people are also among those whose job opportunities are most likely to be adversely affected by the minimum wage. Empirical work which bears this out also shows, however, that the impact is not so great as to put this issue in the front rank of urgency. Moreover, a youth differential might lead to some substitution of youth for low-wage adult workers.

6. CONCLUSION ON EQUITY AND EFFICIENCY

The vast numbers of people now unemployed, the unequal distribution of this burden, and the urgent need for positive adjustment and medium-term growth, together create a situation in which equity and efficiency issues are inextricably intertwined. An approach to either type of issue on its own would be inadequate. However, it is all the more important to choose the right mix of policies since the resources that may be directed at these problems are severely contrained by slack economies and rising deficits. A sharp focus is essential. The balance of policies finally chosen by Member countries will depend on their own social and political values but, that being said, there are some characteristics which are common.

First, labour market imbalances stem from a wide range of sources. Attempts at solutions need to be seen, therefore, in a broad context. The macro-economic stance, the direction of economic development, the nature and distribution of public expenditure all bear heavily on the amount and incidence of unemployment and the capability of labour markets to assist structural change. This indicates that labour issues need to be integrated into all social and economic policy-making.

Second, medium-term improvements in employment will be served better by policies which reduce negative externalities rather than by efforts to avoid or retard necessary adjustments. However, a careful balancing and sharing of the costs of these adjustments is required. They should preferably form part of longer-term planning decisions and be based on extensive consultation and negotiation with all parties involved.

Third, and perhaps more controversially, it appears that welfare – and efficiency – in the longer term will be greater if there is a greater concentration in the present on the problems of the groups suffering labour market disadvantage. This is for several reasons. Allocative efficiency is damaged by the existence of highly segmented labour markets. Employers effectively have a smaller pool of talent to draw upon. They are also locked into a primary labour force with strong bargaining power with all that that entails for the growth of wage and non-wage labour costs and inflation in the future. Greater integration of marginal workers could well improve productivity and weaken the impulses transmitting inflation – an example of the concurrence of social and economic goals. Furthermore, the social and economic costs imposed on the community as a result of the existence of isolated and alienated groups can be expected to increase if they are not enabled to become more self-sustaining. Finally, what kind of society is it that achieves medium-term growth at the expense of large numbers of its own members? Even if it can be done (which is doubtful), the society which emerges from the process can hardly be said to have achieved a growth in welfare.

Annex A

MAIN ORIENTATIONS OF LABOUR MARKET POLICIES DURING THE 1970s

The priority given in the application of macro-economic policy to the fight against inflation severely constrained the scope of action for labour market policies. Since the slackening of labour markets was one – albeit not the only – means of containing inflationary pressures there was little emphasis on reflating labour markets through employment policies such as non-targeted job creation measures or through reductions of labour supply. Although great efforts were undertaken to design labour market policies which would increase employment while not adding to inflation, for instance by targeting job creation measures to groups with low bargaining power, the inherent policy dilemma between a restrictive macro-policy and an expansive labour market policy could not be removed and, in fact, continues to plague the present policy debate. This dilemma is further exacerbated under present budgetary constraints. If a sizeable dent in unemployment is aimed at, labour market measures have to be of an appropriate scale and this raises the crucial question of their financing. Even allowing for subsequent savings in unemployment benefits and additional tax revenue from re-employed numbers, increased expenditure on job creation programmes could swell public deficits at a time when in many countries they are viewed as too high.

a) Job preservation measures

During the first years after the onset of the 1973/74 recession the main goal of labour market policies was to develop holding operations in anticipation of a recovery which was expected, sooner or later. The main policy instruments in this context were *short-time working, job preservation subsidies* and other *holding operations*. Short-time working or partial unemployment benefits were mostly developed in Europe and in Japan. The importance of this measure can be gauged from the fact that in countries like Germany, there were, on occasion, roughly as many people on short-time work as unemployed. In France, there already existed a well-established procedure dating back to the 1960s of financial support for those affected by partial unemployment. Early in 1975 a new law came into effect encouraging firms to abstain from redundancies, or to reduce the number of redundancies by introducing short-time working. In this case the National Employment Fund undertook to compensate up to 80 per cent of the earnings lost by those who were put on partial unemployment.

A different type of measure consists of *job preservation subsidies*. This instrument was used for instance by the United Kingdom and Sweden. The British Temporary Employment Subsidy was introduced in 1975 and remained in operation until 1979. At its height, the scheme was supporting the continued employment of roughly 200 000 workers. The Swedish Employment Maintenance and Training Subsidy had been in existence for some years before 1977 but had not been used on an appreciable scale. When the world recession began to affect Swedish employment, the subsidy rate was increased substantially and take-up under the scheme became very large, amounting in March 1978 to 225 000 persons approved for training. This scheme is still in operation but take-up was reduced in 1980/81. Unlike the United Kingdom scheme, the Swedish one does not simply subsidise deferred redundancies but obliges employers to provide training for the subsidised workers (instead of using them in production).

Many countries took *measures to keep specific industries or firms afloat* and thus maintain employment. Such rescue operations were very frequent in the mid-1970s and obvious examples can be found in areas such as ship-building, steel and motor vehicles in many OECD countries. It is, of course, difficult to view these types of measures as proper instruments of labour market policy but since their principal objective was to preserve productive capacity and employment, in particular avoiding major employment dislocations in local labour markets, the difference between these measures and other labour market protection measures is fairly tenuous. The same holds true for related policies such as liquidity loans and grants, stockpiling support grants and bulk procurement orders implemented by some of the Nordic countries. Norway for example ran a stockpiling support scheme from 1975 to 1978 in which a number of firms employing altogether more than 50 000 workers received substantial public assistance in the form of interest grants. Firms were eligible for the scheme which normally exported directly or indirectly at least 50 per cent of their production and which refrained from making substantial cuts in employment. Sweden used a similar stockpiling support grant but

also used government procurement orders as a means of counteracting reductions in employment and averting threatened redundancies. For governmental orders placed earlier than planned, a subsidy can be paid by the Labour Market Board covering part or all of the total cost of the order.

b) Job creation measures

The persistence of labour market slack in most OECD Member countries after 1975/76 led to a situation in which the various protective employment measures were felt to create serious structural adjustment problems. While such measures make sense as holding operations, they obviously protect existing industrial structures and impede necessary adjustments of manpower to new demand patterns, trade flows and technological change. Faced with this situation, many countries resorted to a more active approach in tackling the problem through direct job creation policies in the public or the private sector.

Public sector job creation has a fairly long tradition in the United Kingdom but during the 1970s the legislative base for developing counter-cyclical public sector employment programmes was substantially increased. In 1975 and 1977 there were major extensions in the legislation (CETA) and, at its peak in 1978, public service employment provided work for 1.2 million workers. The underlying philosophy in the United States was that the government should act as an "employer of last resort" for those who were not able to find a job in mainstream employment. Only to a limited extent were these additional jobs created in the normal public sector or through public works but efforts were undertaken – based on earlier Canadian experience – to decentralise job creation initiatives at local community level. The central government provided financial support to such local initiatives. Similar approaches have been developed in Denmark, Finland, the Netherlands, New Zealand and Norway. Other countries, for instance France and the Netherlands, had special programmes to create short-duration extra jobs in the normal public sector, although the scope for these has generally been small. More important in some countries has been employment in relief work. Here, the chief example comes from Sweden with numbers employed averaging 50 000 in 1978/79. This figure compares with an average of about 45 000 registered unemployed at the same time.

As with job protection measures, the direct creation of public sector jobs has run into difficulties since they were designed as temporary and transitional policies to bridge a period of economic slack. With the persistence of slow economic growth and weak labour markets, these schemes have come under pressure in that the output produced was sometimes not viewed as of sufficient social value or not appropriate to be sold in the open market. Gradually, more emphasis therefore was put on *direct job creation measures in the private sector*. The basic idea is that those firms who increase their work force would be either subsidised for part of the additional labour costs, or part of the social charges of the newly hired workers would be reduced. One country which has made substantial efforts in this direction is France. An employment subsidy scheme (prime d'incitation à la création d'emplois) was introduced as early as 1975. The measures which succeeded this employment subsidy constituted a series of National Employment Pacts in which the emphasis was on promoting the employment of young people and, in the later versions, also of other designated special groups. Sweden offered a substantial subsidy for new jobs created in the period 1978/79. The expectation was that this would stimulate recruitment sufficiently in advance of the recovery so that firms would be able to expand more quickly and more smoothly. Both Canada and the United States introduced Tax Credit Programs for firms which expanded their employment.

c) Measures for special groups

With the persistence of labour market slack, the incidence of unemployment is bound to fall increasingly on particular groups. Even if one assumes that in the process of normal job turnover the inflow into unemployment will be fairly evenly distributed between various groups, the same will certainly not hold for the outflows. The more productive or "preferred" workers will find new jobs more easily, whereas the less productive workers and those suffering from discrimination will remain longer in unemployment. Thus, over a longer period of time the stock of the unemployed will become more and more unevenly distributed and biased towards those groups with labour market problems. As a result, the problem of special groups became a major political issue during the 1970s, and governments were compelled to adapt comprehensive policy packages – often going beyond simple labour market measures – in favour of these groups.

By far the most attention was given to the serious problem of *youth unemployment* which, during the decade, increased in almost all Member countries. The type of measures adopted to help young people has usually involved a combination of measures to ease the transition from education to working life, such as occupational guidance and orientation, vocational training, apprenticeship training, and work experience programmes. These measures were then complemented by job creation subsidies paid to employers hiring young people. Job creation programmes for young people in the public sector were only used marginally. The French Employment Pacts are typical examples of such comprehensive measures to help young people. Similar comprehensive programmes were carried out in the United Kingdom (Youth Opportunities Programme). Other countries introduced youth programmes with the objective of helping to meet new needs. Canada set up a Youth Jobs Corps Programme in 1977 to provide employment opportunities for unemployed youth in projects developed by federal departments and agencies to enhance the participants' mobility.

Denmark instituted programmes to subsidise employers, whether state or local public authorities or private sector, creating extra trainee places. Australia created the Community Youth Support Scheme in 1976 to help unemployed young people maintain a positive attitude to employment by taking part in community-based activities. Belgium has the distinction of combining the carrot with the stick in its measure requiring private sector firms to increase employment by engaging an extra percentage of young persons whose employment is then subsidised.

It is important to note, however, that a small number of countries have almost entirely focused on the supply side by expanding vocational training. Austria, Switzerland and Germany have adopted this approach – building however on an elaborate apprenticeship system already in existence by inducing private employers to maintain or increase their supply of training places. Germany in addition introduced a law in 1976 which allowed a special levy to be imposed on employers to finance extra training places if the number of training places spontaneously offered by them does not exceed the demand for places by at least 12 1/2 per cent. The supply of training places has gone up strongly and has been more or less equal to the demand. The levy was not introduced, primarily because employers consider training to be their responsibility. The 1976 law has since then been declared unconstitutional, and the idea of a training levy has been abandoned.

Examples of special measures in favour of the *long-term unemployed* can be found in Denmark and the United States. A Danish scheme, introduced in 1978, provides that persons under 60 who are about to exhaust their entitlement to unemployment benefit must be given an offer of normal employment lasting at least 9 months. If employment is found in the private sector, the employer receives the subsidy. If no job can be found in the private sector, the local authorities or the central government have to provide one. The United States made the long-term unemployed, especially those whose unemployment insurance was exhausted, one of the main target groups for the additional public service jobs created under the new legislation of 1977 mentioned above.

Relatively few new initiatives were undertaken to improve the *employment opportunities of women*. The introduction of anti-discrimination legislation, however, continued during the period under review and this has certainly improved the employment chances of women to some extent. Some groups of women such as widows, divorcees or legally separated, or single parents, became eligible for the work experience and employment and training contract schemes in France. Denmark and Norway provided special induction training courses for women. Germany introduced demonstration programmes to train and employ girls and young women in traditional male occupations.

d) Adjusting labour supply to slower growth

Faced with the prospect of continuing labour market slack over the medium term, an extensive public discussion has taken place in Europe about possible reductions of total labour supply – either in the form of reduced numbers of workers in the labour force or in the form of reduced numbers of working hours offered in the market. In particular the latter idea has led to numerous proposals for "sharing out" the total amount of work (measured in working hours) between the employed and the unemployed.

One approach has been to *limit the inflow of foreign workers* or to encourage existing foreign workers with relatively little success to return to their home countries. All the European countries which in the past had pursued an active policy of recruiting migrant workers discontinued this policy after the 1974/75 recession. France in addition has proposed financial incentives to returning migrants.

Reductions of working time have been the subject of much discussion and negotiations between the social partners but relatively little actual change has taken place in this area. Of course, there have been cases of longer vacations, new public holidays, reduced normal weekly hours, greater flexibility of working time and reduced retirement age being granted, but usually not as part of an employment-stimulating policy, rather as part of social policy or within the normal collective bargaining framework. Nevertheless, there are some exceptions: the reduction in average weekly working hours to 39 in Belgium was an attempt to create conditions for extra employment or at least to help arrest the rise in unemployment. The Netherlands and several other countries have introduced experimental schemes, notably in the public sector, to promote the creation of part-time jobs. France reduced the working week by one hour in 1978 and a further hour in 1979, in occupations such as retail distribution, transport, hospitals, etc. where the weekly working hours normally exceeded 40. This measure affected over 1 million persons, mostly women. France is now pursuing a medium-term policy of reducing the standard working week to 35 hours with a view to increasing the number of jobs.

The most widely used policy to reduce labour supply has been in the area of *early retirement*. These measures were adopted, not only where problems of redundancies and over-manning had to be tackled, but also in cases where youth unemployment had been particularly high. In the latter case the objective was to give older workers the possibility of benefitting from retirement at an earlier stage than would otherwise be possible whilst enabling young people to secure a foothold in the labour market. Belgium introduced a pre-pension system in 1976 which carried with it an obligation to engage a young person to replace the retiring worker. Other countries such as Denmark, France and the United Kingdom have introduced early retirement schemes with the explicit objective of releasing jobs for young people. However, unlike the Belgian scheme, no compulsion for a straightforward substitution between a retired older worker and a newly hired young worker

was instituted. The extent to which these schemes have actually helped alleviate youth unemployment is still subject to debate.

e) Better matching of supply and demand

The traditional concept of an active manpower policy consists of balancing labour supply and demand in individual labour markets and thus achieving higher overall employment levels than would otherwise be the case. Labour market interventions are required in circumstances where wages do not adjust sufficiently rapidly to clear the market or where these adjustments would be undesirable from a social point of view. During the earlier part of the recession measures to improve market decisions could be viewed as of lesser importance due to the slow growth performance of the economy and the accompanying slowdown in structural change. However, with the prolongation of slow or moderate economic growth, the need for structural change has increased, not diminished. Technological change, rising energy prices and new patterns of world trade have slowly and gradually changed the economic environment. But due to weak investment activities and protective industrial policies in the wake of slow growth, productive potential has not kept pace with these developments. Hence the need for corrective policies and positive adjustments, including labour market adjustments, if the growth potential of OECD economies is to be maintained. Several countries have improved their *public employment services* by increasing their staff, improving the training of placement staff, by introducing compulsory notification of vacancies, the implementation of self-service facilities and the extension of vocational guidance. One innovative development was the organisation of "job markets" or "job fairs" in the Netherlands and in Belgium.

In one effort to contribute to such positive adjustments to structural change, a number of countries have also introduced publicly-run temporary work agencies or special offices to provide candidates for temporary jobs.

There were some small-scale schemes aimed at providing higher levels of *skill for hard-to-fill vacancies.* Australia, for instance, introduced a programme on "Skills in Short Supply" in 1978 as an experiment. Canada initiated a Critical Trade Skills Training measure in 1979 to provide direct financial assistance to industry to cover training costs and wage support to help meet the higher costs incurred during a maximum training period required in selected high-skill occupations. The United Kingdom has specialist training programmes in such critical areas as computer occupations, training for overseas trade, industrial language training and the off-shore oil programme.

In periods of economic downturn *geographical mobility* tends to decline and the experience in the latter half of the 1970s generally confirms this. However, some countries have sought to counter this development by providing extra incentives and support for movement, especially by the more mobile section of the population – the young. New Zealand, for instance, introduced an Inter-District Job Contact Scheme in 1977 under which persons registered as unemployed for 4 weeks or more can be provided with non-recoverable return fares for interviews in other districts as well as assistance with household and dependants' removal expenses. France has a special mobility incentive for young people (prime de mobilité des jeunes) unable to find a first salaried employment near his/her normal place of residence.

f) Unemployment compensation

Unemployment compensation systems were improved during the late 1960s and early 1970s with wider coverage of people eligible for compensation as well as more generous benefit levels. However, these systems ran into serious financial problems with the continuation of the recession and the build-up of long-term and structural unemployment. Most countries, therefore, responded in the late 1970s by tightening eligibility criteria, increasing contributions, introducing taxes on benefits and reducing various forms of abuse of the system. More recently some public discussion has centred on whether it would be feasible to use the funds from unemployment insurance systems more positively than paying people for doing nothing. A number of measures have been introduced either to provide the long-term unemployed with training financed partly from unemployment insurance benefits, direct job creation programmes in the public sector financed in the same way and, the most innovative example, providing the unemployed with the opportunity of using a certain amount of their expected unemployment benefit payments for the creation of small enterprises. This last example has been implemented by France.

BIBLIOGRAPHY

AKERLOF, G.A.(1979), "The Case Against Conservative Macro-Economics: an Inaugural Lecture", *Economica*, Vol. 46, August, pp. 219-237.

BARGE, M. and SALAIS, R. (1981) "La Place des Jeunes sur le Marché du Travail entre 1973 et 1980 : L'exemple français." (Report prepared for OECD, September) (mimeo).

BETCHERMAN, G. (1980), *Skills and Shortages, a Summary Guide to the Findings of the Human Resources Survey*, Economic Council of Canada.

BIRCH, D. (1979), *The Job Generation Process*, Cambridge, MIT Program on Neighborhood and Regional Change.

BLANPAIN, R. et DRUBIGNY, J.L. (1980), *Temporary Employment in the Countries of the EEC*, Report for the Commission of the European Communities, Brussels.

BOUMAN, A., HEIJKE, H. and KONING, J. de (1979), *Ontwikkeling en Oorzaken van Jeugdwerkloosheid*, Ministerie van Sociale Zaken, September.

BOWERS, J. (1981), "The Duration of Unemployment by Age and Sex, 1976-1980" (Report prepared for the OECD, July) (mimeo).

BOWERS, N. (1980), "The Dynamics of Youth Labour Force Flows: An Empirical Examination of Data from the Current Population Survey" (Paper presented to the Experts' Meeting on the Role of High Turnover in Youth Labour Markets, OECD, Paris, 27th-28th November) (mimeo).

BRENNER, H. (1979), "Mortality and the National Economy." A Review and Experience of Europe and North America, 1936-1976, The John Hopkins University (mimeo).

COLIN, J.F. and WELCOMME, D. (1981), "L'employabilité des demandeurs d'emploi", *Travail et Emploi*, Ministère du Travail, July–September, No. 9, pp. 31-46.

CRAMER, U. and WERNER, H. (1981), "Causes and Consequences of High Turnover Among Young People on the German Labour Market" (Report prepared for the OECD, March) (mimeo).

DEPARTMENT OF EMPLOYMENT, *Employment Gazette*, several issues.

DEPARTMENT OF EMPLOYMENT (1980), "Measuring Unemployment and Vacancy Flow", Department of Employment, *Employment Gazette*, June, pp. 627-635.

DOBELL, A.R. (1981), "Social Policy Making in the 1980s: Elements and Issues", *The Welfare State in Crisis*, OECD, Paris.

DONALDSON and CREIGH (1979), "Unfair Dismissal Provisions in Western Europe", Department of Employment, *Employment Gazette*, August, pp. 757-786.

FELDSTEIN, M.S. (1978), "The Effect of Unemployment Insurance on Temporary Layoff Unemployment", *American Economic Review*, Vol. 68, December, pp. 834-848.

GENNARD, J. (1979), *Job Security and Industrial Relations*, OECD, Paris.

GINZBERG, E. (1979), *Good Jobs, Bad Jobs, No Jobs*, New York.

GREENE, R. (1981), "Employment Trends in Energy Extraction", *Monthly Labor Review*, U.S. Department of Labor, Vol. 104, No. 5, May. pp. 3-8.

GREGORY, R.G. and STRICKER, P.P. (1981), "Teenage Employment and Unemployment in the 1970s" (Paper presented to a Joint Conference on Youth, Employment, Education and Training, the Australian National University, Canberra, 23rd-25th February).

HALL, R.E. (1980), "Employment Fluctuations and Wage Rigidity", *Brookings Papers on Economic Activity*, 1980: 1, pp. 91-123.

HARRISON, R. (1976), "The Demoralising Experience of Prolonged Unemployment", Department of Employment, *Employment Gazette*, April, pp. 339-348.

HASAN, A. and de BROUCKER, P. (1981), "The Dynamics of Unemployment: A Transition Flow Analysis of the Canadian Labour Market", Economic Council of Canada, May.

HECKMAN, J. and BORJOS, G.J. (1980), "Does Unemployment Cause Future Unemployment? Definitions, Questions and Answers from a Continuous Time Model of Heterogeneity and State Dependence", *Economica*, August, pp. 247-283.

HOUSE OF COMMONS (1981), *Third Report from the Social Services Committee*, Session 1980-81, HMSO, London.

HUNTER, L.C. (1978), *Labour Shortages and Manpower Policy*, Manpower Studies, No. 19782, HMSO, London.

I.A.B. (1976), *Technik und Arbeitsmarkt*, Nürnberg.

INFRATEST-SOZIALFORSCHUNG (1978), Motivation von Arbeitssuchenden, Hemnisse für die Einstellung von Arbeitslosen, Effektivität von Vermittlung und Beratung, Fortbildungsund Mobilitätsbereitschaft von Beschäftigten.

INSTITUT DE RECHERCHES SYNDICALES, CES (1980), *Les Incidences de la Microélectronique sur l'Emploi*, Bruxelles.

JENKINS, C. and SHERMAN, B. (1979), *The Collapse of Work*, London.

KALACHEK, E. (1980), "Longitudinal Surveys and the Youth Labour Market", published as Annex I in OECD, *Youth Unemployment: The Causes and Consequences*.

LANCASTER, T. (1979), "Econometric Methods for the Duration of Unemployment", *Econometrica*, July, pp. 939-956.

LAYARD, R. (1981), *Is Incomes Policy the Answer to Unemployment?*, Centre for Labour Economics, ...ission paper No. 99, October.

LAYARD, R. and NICKELL, S.J. (1980), "The Case for Subsidizing Extra Jobs", *Economic Journal*, ...arch, pp. 51-73.

MAKI, D. and SPINDLER, Z.A. (1975), "The Effect of Unemployment Compensation on the Rate of Unemployment in Great Britain", *Oxford Economic Papers*, Vol. 27, November, pp. 440-454.

MALINVAUD, E. (1981), "Wages and Unemployment", *Economic Journal*, March 1982, pp. 1-12.

MANPOWER SERVICE COMMISSION (1979), *Report on Hard-to-Fill Vacancies*, September.

MARSTON, S.T. (1975), "The Impact of Unemployment Insurance on Aggregate Unemployment", *Brookings Papers on Economic Activity*, No. 6, pp. 13-49.

MATSUDA, Y. (1980), "Minimum Wage System in Japan", *Japan Labor Bulletin*, 1st May, pp. 7-10.

McGREGOR, A. (1978), "Unemployment Duration and Re-Employment Probability", *Economic Journal*, December.

Mc LEAN, J.M. and RUSH, H.J. (1978), "The Impact of Micro-Electronics on the UK", *SPRU Occasional Paper*, No. 7, June, Sussex University.

MINCER, J. (1976), "Unemployment Effects of Minimum Wages", *Journal of Political Economy*, August, Part 2, S87-S104.

MINIMUM WAGE STUDY COMMISSION (1981), *Report of the Minimum Wage Study Commission*, U.S. Government Printing Office, Washington D.C.

MINISTRY OF ECONOMIC AFFAIRS (1981), *The 1980 Medium Term Survey of the Swedish Economy*, Stockholm.

MINISTRY OF LABOUR (1980), *A Survey on Skill Shortages*, Japan.

MITTELSTÄDT, A. (1975), *Occasional Studies, OECD Economic Outlook*, July, OECD, Paris.

NICKELL, S.J. (1980), "A Picture of Male Unemployment in Britain", *Economic Journal*, December, pp. 776-794.

OECD (1976), *Ministers of Labour and the Problems of Employment*, Vol. I, Paris.

OECD (1977a), *Towards Full Employment and Price Stability*, by P. McCracken *et al.*, Paris.

OECD (1977b), *Ministers of Labour and the Problems of Employment and Unemployment*, Vol. II, Paris.

OECD (1977c), *Structural Determinants of Employment and Unemployment*, Vol. I, Paris.

OECD (1978a), *A Medium-Term Strategy for Employment and Manpower Policies*, Paris.

OECD (1978b), *Youth Unemployment*, Vol. I: A report on the High Level Conference, 15-16 December, 1977; vol. II: Inventory of Measures Concerning the Employment and Unemployment of Young People, Paris.

OECD (1979a), *Structural Determinants of Employment and Unemployment*, Vol. II, Paris.

OECD (1979b), *Demographic Trends 1950-1990*, Paris.

OECD (1979c), *Socio-Economic Policies for the Elderly*, Paris.

OECD (1980a), *High Level Conference on Information, Computer and Communication Policies in the 1980s*, Paris.

OECD (1980b), *Women and Employment, Policies for Equal Opportunities*, Paris.

OECD (1980c), *Youth Unemployment: The Causes and Consequences*, Paris.

OECD (1980d), "Young Foreigners and the World of Work", Paris (derestricted document).

OECD (1980e), *Direct Job Creation in the Public Sector*, Paris.

OECD (1981a), *Youth without Work: Three Countries Approach the Problem*, Paris.

OECD (1981b), *The Welfare State in Crisis*, Paris.

OECD (1981c), *Energy Policies and Programmes of IEA Member Countries*, Paris.

OECD (1981d), *The OECD Observer*, Paris, No. 113, November.

OECD (1981e), *Information Activities, Electronics and Telecommunications Technologies*, ICCP6, Vol. 1, Paris.

OECD (1982), *Labour Supply, Growth Constraints and Work Sharing*, Paris.

OECD (Annual Reports), "The Continuous Reporting System on Migration" (SOPEMI), Paris (derestricted documents).

OECD (forthcoming), *Manpower and Social Aspects of Positive Adjustment Policies*.

OECD (forthcoming), *Marginal Employment Subsidies*.

RAMSDEN, S. and SMEE, C. (1981), "The Health of Unemployed Men: A DHSS Cohort Study", Department of Employment *Employment Gazette*, September, No. 9, pp. 397-401.

REES, A. (1973), *The Economics of Work and Pay*, Harper and Row, New York.

RODBERG, L.S., DANEKER, G. and GROSSMANN, R. (1980), *Energy and Employment: A Review and Commentary* - Background Paper for the National Panel on Energy and Employment Policy, Environmentalists for Full Employment, Washington D.C., January.

SACHS, J.D. (1979), "Wages, Profits and Macroeconomic Adjustment: A Comparative Study", *Brookings Papers on Economic Activity*, 2.

SALAIS, R. (1980), "Le chômage, un phénomène de file d'attente', *Economie et Statistique*, No. 123, August.

SAUVY, A. (1980), *La Machine et le Chômage*, Dunod.

SCHNAPPER, D. (1979), *Le Vécu du Chômage*, Ministère du Travail, France.

SOLOW, R.M. (1980), "On Theories of Unemployment", *The American Economic Review*, March, pp. 1-11.

THUROW, L.C. (1975), *Generating Inequality*, Macmillan Press Ltd. New York.

TIETZ, M. et al. (1981), *Small Business and Employment Growth in California*, Institute of Urban and Regional Development, Berkeley, March.

UNITED STATES COUNCIL OF ECONOMIC ADVISORS (1978), *Economic Report of the President*.

WALSH, B. (forthcoming), *Unemployment Insurance and the Labour Market: A Review of Research Relating to Policy*, OECD, Paris.

WASSERMAN, J. (1979), *Strategic Impact of Intelligence Electronics in U.S. and Western Europe, 1977-1985*, A.D. Little Inc., London.

WEST, E.G. and McKEE, M. (1980), *Minimum Wages: the New Issues in Theory, Evidence, Policy and Politics*, a study prepared for the Economic Council of Canada and the Institute for Research on Public Policy, Canadian Government Printing Centre.

STATISTICAL ANNEX

Table A. Growth of the real gross domestic product
Average annual growth rates in percentages

	1960-1970	1970-1973	1973-1975	1975-1979	1980	1981[1]
Australia	5.4	4.6	2.1	2.6	1.8	3
Austria	4.8	5.6	1.2	4.0	3.1	0
Belgium	4.9	5.1	1.2	2.8	2.5	−1¼
Canada	5.2	6.8	2.3	3.7	−0.1	3
Denmark	4.7	4.4	−0.7	3.6	−0.2	−½
Finland	4.8	5.3	1.9	2.5	5.0	1¼
France	5.6	5.6	1.7	3.7	1.2	¼
Germany	4.7	3.9	−0.7	4.0	1.9	−1
Greece	7.6	7.8	1.1	4.9	1.7	−¼
Iceland	4.4	9.0	1.7	4.3	2.0	1¼
Ireland	4.3	4.5	2.9	4.0	0.5	2
Italy	5.7	3.9	0.2	3.8	4.0	0
Japan	11.1	8.1	0.5	5.9	4.4	3¾
Luxembourg	3.5	6.7	−2.6	2.9	0.8	−3¼
The Netherlands	5.2	4.5	1.2	3.1	0.6	−2
New Zealand	3.8	4.7	2.9	0.3	2.5	2½
Norway	4.3	4.6	4.7	4.2	3.8	1¼
Portugal	6.4	8.6	−1.7	4.9	5.5	2¼
Spain	7.3	7.0	3.4	2.5	1.2	1¼
Sweden	4.6	2.3	3.0	1.1	1.4	0
Switzerland	4.7	3.4	−3.0	0.9	4.4	1¼
Turkey	5.7	6.7	8.7	4.1	−0.6	4
United Kingdom	2.8	4.1	−1.0	2.4	−1.4	−2
United States	3.9	4.7	−1.1	4.4	−0.1	1¾
Weighted average for all OECD countries	5.0	5.1	0.1	4.0	1.2	1¼

1. The 1981 figures are taken from *OECD Economic Outlook*, December 1981.
Source: National Accounts of OECD Countries.

Table B. Changes in consumer price indices
Average annual growth rates in percentages

	1960-1970	1970-1973	1973-1975	1975-1979	1980	1981[1]
Australia	2.5	7.1	15.1	10.7	10.2	9.1(3)
Austria	3.6	6.2	9.0	5.0	6.3	7.2(10)
Belgium	3.0	5.6	12.7	6.3	6.7	7.8(10)
Canada	2.7	5.1	10.8	8.4	10.1	12.7(10)
Denmark	5.9	7.2	6.2	9.9	12.3	11.9(10)
Finland	5.0	8.1	17.4	10.4	11.4	11.3(10)
France	4.0	6.3	12.8	9.7	13.6	14.1(10)
Germany	2.7	5.9	6.5	3.8	5.5	6.7(10)
Greece	2.1	7.5	20.0	14.2	24.8	25.4(9)
Iceland	11.9	12.1	46.0	37.8	57.3	49.7(8)
Ireland	4.8	9.7	18.9	13.1	18.2	20.1(3)
Italy	3.9	7.1	18.0	15.5	21.2	18.6(9)
Japan	5.7	7.4	17.9	6.2	8.0	4.1(10)
Luxembourg	2.6	5.3	10.1	6.0	6.3	8.8(10)
The Netherlands	4.0	7.8	9.9	5.9	6.5	7.1(10)
New Zealand	3.8	8.5	12.9	14.2	17.1	15.4(8)
Norway	4.5	7.0	10.5	7.8	11.3	12.6(10)
Portugal	4.5	11.9	20.1	23.2	16.6	23.6(9)
Spain	6.1	9.3	16.3	19.4	15.5	14.1(9)
Sweden	4.0	6.7	9.9	9.7	13.8	10.4(10)
Switzerland	3.3	7.3	8.2	1.9	4.0	7.3(10)
Turkey	..	15.3	19.4	36.4	110.2	31.4(10)
United Kingdom	4.1	8.6	20.1	13.5	18.0	11.7(10)
United States	2.8	4.6	10.1	7.8	13.5	10.2(10)
Weighted average for all OECD countries	3.4	6.0	12.3	8.8	12.9	10.4(10)

1. The 1981 figures show a 12 month change to the month shown in parenthesis.
Source: OECD Main Economic Indicators.

Table C. Growth in productivity[1]
Average annual growth rates in percentages

	1960-1970	1970-1973	1973-1975	1975-1979	1980
Australia	2.2[2]	2.4	1.2	1.6	−1.2
Austria	5.9	5.2	2.4	3.1	2.5
Belgium	4.1	4.4	1.4	2.8	2.6
Canada	2.5	3.3	−0.6	0.9	−2.7
Denmark	3.3	3.4	0.5	1.9	0.9
Finland	4.7	4.7	0.6	3.4	1.8
France	5.0	4.8	1.9	3.4	1.0
Germany	4.5	3.9	2.0	3.8	1.0
Greece	8.5	7.2	1.0	4.1	−0.2
Iceland	2.6	5.2	−0.4	2.2	2.0
Ireland	4.3	4.4	2.4	2.1	−0.6
Italy	6.3	4.2	−1.0	2.9	2.5
Japan	9.6	7.0	1.0	4.0	3.4
Luxembourg	3.1	4.0	−4.5	2.7	−0.5
The Netherlands	4.0	4.5	1.5	2.7	0.3
New Zealand	1.6	2.9	0.3	−0.6	0.3
Norway	3.5	2.3[3]	3.0	2.5	1.6
Portugal	6.2	9.2	−8.8[4]	4.3	3.1
Spain	6.6	5.9	3.9	4.2	6.3
Sweden	3.9	2.1	0.9	0.4	0.2
Switzerland	3.2	2.6	−0.1	1.3	2.7
Turkey	4.6	4.8	7.2	2.9	−1.0
United Kingdom	2.6	3.8	−0.9	1.2	0.2
United States	2.0	2.7	−1.3	1.1	−0.4
Weighted average for all OECD countries	4.0	4.0	0.1	2.5	0.8

1. Defined as GDP per employed person.
2. For the period 1964-1970.
3. There is a significant break in the total employment series at 1971-1972.
4. There is a significant break in the total employment series at 1973-1974.

Sources: *National Accounts of OECD Countries* and OECD *Labour Force Statistics*.

Table D. Growth in real earnings[1]
Average annual growth rates in percentages

	1960-1970	1970-1973	1973-1975	1975-1979	1980	1981[2]
Australia	3.1	3.8	4.2	0.2	0.6	4
Austria	6.2	7.5	2.3	1.9	0.7	1
Belgium	4.4	6.9	4.3	2.4	1.0	¾
Canada	2.7	3.2	3.1	0.4	−1.5	−1¼
Denmark	4.4	2.7	4.7	−1.5	−2.1	−1¼
Finland	4.6	5.1	3.7	0.2	1.1	0
France	4.1	5.0	4.1	2.6	1.8	1¼
Germany	5.6	4.6	2.6	2.3	1.1	−¼
Greece	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Iceland	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Ireland	4.6	6.0	2.9	2.1	3.6	−1¼
Italy	6.6	6.1	0.0	2.2	0.3	2¼
Japan	7.9	8.4	3.2	2.1	0.6	2¼
Luxembourg	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
The Netherlands	3.4	3.6	3.2	1.0	−0.4	−1¼
New Zealand	2.5	3.5	2.6	0.0	−0.2	1
Norway	3.7	2.1	3.7	0.1	−1.0	−3
Portugal	6.9	9.8	n.a.	n.a.	n.a.	n.a.
Spain	7.7	6.2	3.3	4.0	2.1	1¼
Sweden	4.2	−0.2	0.8	−0.6	−0.3	−¾
Switzerland	4.2	5.1	0.9	1.6	3.9	¾
Turkey	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
United Kingdom	2.6	3.8	2.6	0.4	5.2	2¼
United States	2.0	1.4	−2.2	0.8	−1.2	1
Weighted average for all OECD countries	3.8	4.0	1.2	1.5	0.4	1

1. Wages and salaries per employee deflated by private consumption deflator.
2. The 1981 figures have been derived from those published in *OECD Economic Outlook*, December 1981.

Sources: *National Accounts of OECD Countries*, OECD *Labour Force Statistics* and Secretariat estimates.

Table E. **Growth in the population of working age (15-64)**
Average annual growth rates in percentages

	1960-1970	1970-1973	1973-1975	1975-1979	1980
Australia	2.2	2.5	1.9	1.6	1.7
Austria	−0.2	0.5	0.2	0.6	2.0
Belgium	0.3	0.5	0.7	0.7	0.6
Canada	2.3	2.2	2.6	1.9	1.6
Denmark	0.8	0.5	0.2	0.4	0.6
Finland	1.0	0.9	0.7	0.4	0.4
France	1.1	0.9	0.8	0.7	0.4
Germany	0.2	0.8	0.1	0.4	0.9
Greece	0.3	0.3	0.7	1.1	1.0
Iceland	1.7	1.9	2.3	1.5	1.4
Ireland	0.2	1.5	1.9	1.7	1.9
Italy	0.6	0.4	1.0	0.7	−1.2
Japan	1.9	1.2	0.9	0.8	0.9
Luxembourg	0.4	1.8	1.5	0.5	0.8
The Netherlands	1.5	1.3	1.4	1.4	1.4
New Zealand	1.9	2.2	2.6	0.9	0.9
Norway	0.7	0.7	0.6	0.6	0.6
Portugal	−0.3	−0.2	4.0	0.6	0.4
Spain	0.7	1.2	1.0	1.3	1.3
Sweden	0.7	0.0	−0.1	0.2	0.4
Switzerland	1.3	0.1	0.4	0.2	0.8
Turkey	2.3	3.0	3.3	3.1	3.1
United Kingdom	0.2	0.1	0.1	0.4	0.5
United States	1.6	1.7	1.5	1.5	1.3
Weighted average for all OECD countries	1.1	1.2	1.2	1.1	1.0

Source: OECD *Labour Force Statistics.*

Table F. **Participation rates**[1]

Percentages

	1960	1970	1973	1979	1980
Australia	..	70.7	70.5	69.3	70.6
Austria	72.9	66.1	65.8	65.5	65.1
Belgium	62.2	63.0	63.6	64.4	64.2
Canada	62.8	64.5	66.7	71.0	71.8
Denmark	71.2	74.9	75.9	80.9	81.4
Finland	78.0	72.0	71.7	71.7	72.7
France	70.3	67.7	67.6	68.0	68.1
Germany	70.3	69.5	68.3	65.7	65.6
Greece	65.7	57.8	57.1	56.0	55.9
Iceland	67.3	68.7	70.9	73.0	72.0
Ireland	57.1	65.8	63.1	62.5	61.4
Italy	66.6	59.5	58.9	60.3	61.9
Japan	75.8	72.0	71.7	71.7	71.8
Luxembourg	61.7	63.1	64.5	64.6	64.7
The Netherlands	60.4	58.3	56.6	53.6	53.5
New Zealand	63.0	64.9	64.0	65.6	66.2
Norway[2]	64.3	64.1	67.8	74.5	75.6
Portugal[3]	59.6	64.7	64.0	69.7	71.0
Spain	61.9	62.1	62.7	58.3	56.4
Sweden	74.3	74.3	75.5	80.5	81.0
Switzerland	75.0	76.4	78.1	71.2	71.7
Turkey	84.9	78.7	75.4	69.7	68.9
United Kingdom	71.7	72.4	72.9	73.9	73.5
United States	66.8	67.7	69.3	72.1	72.4
Weighted average for all OECD countries	69.4	68.2	68.2	69.0	69.1

1. Defined as the total labour force divided by the population of working age (15-64) at mid-year.
2. Data prior to 1973 are not consistent with those of later years.
3. Data for 1979 are not consistent with those of earlier years.

Source: OECD *Labour Force Statistics.*

Table G. Total labour force
Average annual growth rates in percentages

	1960-1970	1970-1973	1973-1975	1975-1979	1980
Australia	2.8[1]	2.4	2.2	1.2	2.8
Austria	−1.1	0.3	0.8	1.0	0.4
Belgium	0.7	0.8	1.0	0.8	0.3
Canada	2.6	3.3	3.6	2.9	2.8
Denmark	1.3	0.9	0.8	1.8	1.2
Finland	0.2	0.7	1.3	0.1	1.9
France	0.7	0.8	0.5	0.5	0.6
Germany	0.1	0.2	−1.1	0.0	0.9
Greece	−1.0	−0.2	0.3	0.8	0.7
Iceland	1.9	3.2	2.7	2.0	0.0
Ireland	0.0	0.1	0.8	2.0	0.2
Italy	−0.5	0.1	1.0	1.3	1.4
Japan	1.2	1.1	0.0	1.3	1.0
Luxembourg	0.5	2.6	2.0	0.3	1.3
The Netherlands	1.2	0.3	0.6	0.4	1.1
New Zealand	2.2	1.8	2.5	1.4	2.6
Norway	0.7	2.6[2]	2.0	2.2	2.0
Portugal	0.5	−0.6	7.1[3]	1.2	2.3
Spain	0.7	1.5	0.4	−0.2	−2.1
Sweden	0.7	0.5	1.9	0.8	1.2
Switzerland	1.5	0.8	−2.8	−0.5	1.5
Turkey	1.5	1.5	1.3	2.1	2.0
United Kingdom	0.3	0.3	0.5	0.6	−0.3
United States	1.8	2.1	2.0	2.6	1.7
Weighted average for all OECD countries	1.0	1.2	1.0	1.5	1.1

1. Data refer to the period 1964-1970.
2. There is a significant break in the series at 1971-1972.
3. There is a significant break in the series at 1973-1974.
Source: OECD *Labour Force Statistics*.

Table H. **Decomposition of total labour force growth (1973-1988)**
Percentages

	Rate of growth of total labour force	Contributions of:	
		Working age population	Participation rate
Australia	12.4	12.5	0.1
Austria	2.8	3.9	−1.1
Belgium	5.8	4.8	1.0
Canada	24.0	16.0	8.0
Denmark	10.3	2.9	7.4
Finland	4.5	3.2	1.3
France	5.6	4.9	0.7
Germany	−1.1	2.4	−3.5
Greece	4.5	6.6	−2.1
Iceland	14.4	12.9	1.5
Ireland	10.2	12.9	−2.7
Italy	8.9	3.7	5.2
Japan	6.1	6.0	0.1
Luxembourg	6.6	6.3	0.3
The Netherlands	4.1	9.8	−5.7
New Zealand	13.8	10.5	3.3
Norway	15.9	4.1	11.8
Portugal	23.2	11.8	11.4
Spain	−2.1	8.4	−10.5
Sweden	8.6	1.2	7.4
Switzerland	−5.8	2.6	−8.4
Turkey	13.4	22.7	−9.3
United Kingdom	3.2	2.4	0.8
United States	17.3	11.1	6.2
Weighted average for all OECD countries	9.4	8.1	1.3

Source: OECD *Labour Force Statistics.*

Table I. **Estimated stocks of foreign workers**

Thousands

	1974	1975	1976	1977	1978	1979	1980	Percentage of total labour force 1980
Austria	218.0	185.0	171.7	188.9	176.7	170.6	184.1	5.9
Belgium	278.0	..	..	306.3	..	310.1	332.7	8.0
France	..	..	1 642.8	..	..	1 591.0	..	n.a.
Germany	2 386.6	2 226.9	2 027.1	1 977.7	1 961.9	2 025.1	2 168.8	8.1
Luxembourg	..	46.8	..	49.1	..	..	51.9	32.2
The Netherlands	163.4	176.0	180.5	187.0	196.4	..	211.0	4.2
Sweden	200.0	204.0	235.5	225.3	224.5	231.0	234.1	5.4
Switzerland	593.0	553.0	516.0	492.8	489.4	490.7	501.1	16.6

Note: For detailed definitions and notes see the "SOPEMI Report, 1980". It should be noted that the definition of foreign workers varies from country to country. In some cases the unemployed are included, in others they are excluded.

123

Table J. **Actual annual hours worked per person in employment**[1]

Average annual growth rates in percentages

	1960-1970	1970-1973	1973-1976	1976-1978	1978-1980[2]
Belgium	−0.88	−1.53	−1.42	−1.08	−2.92
Canada	−0.72	−0.33	−1.24	−0.59	−2.33
Finland	−0.40	−1.15	−0.62	0.11	−1.16
France	−0.43	−1.02	−1.74	−1.27	−0.24
Germany	−0.88	−1.41	−0.75	−1.50	−0.84
Italy[3]	−1.20	−2.23	−0.58	0.11	−0.89
Japan	−0.08	−0.35	−0.70	0.32	−0.43
Sweden	−0.93	−1.74	−0.69	−2.09	0.83
United Kingdom	−0.97	−0.29	−1.12	−1.06	−1.53
United States	−0.26	−0.04	−0.90	−0.15	−0.65
Unweighted average	−0.66	−1.01	−0.98	−0.72	−1.02

1. These data refer, as far as possible, to the total economy, unless otherwise specified below.
2. Provisional data.

Sources:

Belgium:
1960-1978: Data supplied by the Belgian Bureau du Plan.
1970-1980: OECD *Main Economic Indicators*.

Canada:
1960-1980: Data supplied by Statistics Canada (man-hours of persons employed in manufacturing and commercial service producing industries and commercial non-agricultural goods producing industries) divided by numbers in employment from OECD *Labour Force Statistics*.

Finland:
1960-1980: *Finnish National Accounts* 1975-1980.

France:
1970-1978: A. Maddison and R. Granier, "Propositions pour l'établissement de comptes du marché du travail", Université d'Aix-Marseille, mimeo, Jan. 1980.
1978-1979: A. Maddison, "Les phases du développement capitaliste", *Economica*, Paris, 1981.
1979-1980: *Yearbook of Labour Statistics*, ILO (actual weekly hours of work in non-agricultural sectors).

Germany:
1960-1980: Institut für Arbeitsmarkt und Berufsforschung.

Italy:
1960-1978: Provisional Secretariat estimates for the whole economy.
1978-1980: *Rassegna di statistiche del lavoro* (data refer to manufacturing and construction industries).

Japan:
1960-1980: *Annual report on the labour force survey*.

Sweden:
1960-1980: *Swedish National Accounts* data.

United Kingdom:
1960-1978: A. Maddison and R. Granier, *op. cit.*
1978-1979: A. Maddison, *op. cit.*
1979-1980: U.K., *Dept. of Employment Gazette*, Feb. 1982 (weekly working hours of operatives in manufacturing industries).

United States:
1960-1979: *United States National Accounts* data (employees in total economy).
1979-1980: *U.S. Monthly Labor Review*, Nov. 1981 (weekly hours of production of nonsupervisory workers on private nonagricultural payrolls).

Table K. Total employment

Average annual growth rates in percentages

	1960-1970	1970-1973	1973-1975	1975-1979	1980
Australia	2.8	2.1	0.9	0.8	2.9
Austria	−1.0	0.4	−1.1	0.9	0.6
Belgium	0.8	0.7	−0.1	0.1	−0.1
Canada	2.7	3.4	2.9	2.8	2.7
Denmark	1.4	0.9	−1.3	1.7	−1.1
Finland	0.2	0.6	1.3	−0.9	3.1
France	0.6	0.7	−0.2	0.5	0.2
Germany	0.2	0.1	−2.6	0.2	0.9
Greece	−0.8	0.6	0.1	0.9	1.9
Iceland	1.8	3.6	2.2	2.1	3.0
Ireland	0.0	0.1	0.5	1.9	1.1
Italy	−0.5	−0.3	1.2	0.8	1.5
Japan	1.4	1.1	−0.3	1.2	1.0
Luxembourg	0.5	2.6	2.0	0.2	1.3
The Netherlands	1.2	−0.1	−0.3	0.4	0.3
New Zealand	2.2	1.7	2.5	1.0	2.2
Norway	0.7	2.3[1]	1.6[2]	2.3	2.2
Portugal	0.1	−0.6	7.9	0.5	2.3
Spain	0.7	1.1	−0.5	−1.7	−4.8
Sweden	0.7	0.2	2.3	0.7	1.2
Switzerland	1.5	0.8	−3.0	−0.5	1.7
Turkey	1.1	1.8	1.4	1.2	0.4
United Kingdom	0.2	0.3	−0.1	0.2	−1.6
United States	1.8	2.0	0.1	3.3	0.3
Weighted average for all OECD countries	1.0	1.1	0.05	1.4	0.4

1. There is a significant break in the series at 1971-1972.
2. There is a significant break in the series at 1973-1974.

Source: OECD *Labour Force Statistics.*

Table L. **Unemployment rates**[1]

Percentages

	1960-1969	1970-1973	1974-1976	1977-1979	1980
Australia	1.5[2]	1.8	3.8	5.8	6.0
Austria	2.0	1.3	1.6	1.9	1.9
Belgium	2.2	2.0	4.0	6.7	7.5
Canada	4.7	5.9	6.4	7.9	7.5
Denmark	..	0.9	4.5	6.0	7.4
Finland	1.9	2.2	2.6	6.5	4.7
France	1.7	2.6	3.9	5.3	6.3
Germany	0.8	0.8	3.4	3.7	3.3
Greece	..	..	..	1.8	0.7
Iceland	0.6	0.7	0.5	0.4	1.0
Ireland	5.0	6.0	7.7	7.8[4]	6.0
Italy	5.0	5.8	5.9	7.2	7.4
Japan	1.3	1.3	1.8	2.1	2.0
Luxembourg	..	..	0.2	0.7	0.6
The Netherlands	1.1	1.9	3.7	4.2	5.0
New Zealand	0.2	0.2	0.2	..	2.2
Norway	0.9	1.3	1.8	1.8	1.7
Portugal	..	..	4.6	7.8	8.0
Spain	1.4	2.3	4.3	8.0	12.3
Sweden	1.8[3]	2.3	1.7	2.0	2.0
Switzerland	0.0	0.0	0.3	0.4	0.2
Turkey	..	..	11.0	12.6	15.3
United Kingdom	1.7	2.6	3.5	5.4	6.3
United States	4.6	5.2	7.1	6.2	7.0
Weighted average for all OECD countries	2.6	3.3	4.7	5.3	6.2

1. Defined as unemployment as a percentage of total labour force.
2. For the period 1964-1969.
3. For the period 1963-1969.
4. For the years 1977 and 1979.

Source: OECD *Labour Force Statistics.*

126

Table M. Ratio of youth to adult unemployment rates

	1960	1970	1973	1976	1979	1980
Australia		2.1	2.7	3.3	3.4	3.8
Belgium			2.3	3.3[3]	2.2	
Canada	1.9	2.4	2.4	2.5	2.4	2.4
Denmark				2.8	2.2	
Finland		1.8	2.6	2.7	2.4	2.8
France	2.5[1]	2.2	2.3	3.2	3.3	3.6
Germany	0.5[1]	1.0	1.3	1.7	1.3	1.5
Ireland	2.2[2]	1.5[7]		1.9[3]	1.6	
Italy	1.1	6.5	7.4	8.7	6.6	7.2
Japan	1.4	2.2	2.4	1.7	1.9	2.0
The Netherlands			1.9	2.3[3]	2.5	
New Zealand				4.0	4.5	
Norway			7.0	6.7	6.0	5.1
Portugal[4]			7.3[3]	3.6	4.5	4.6
Spain		3.0	2.3	3.6	4.1	3.8
Sweden		2.4	2.8	3.1	3.3	3.6
United Kingdom[5]		1.5	1.4	3.4	3.3	3.5
United States	2.3	3.1	3.2	2.6	2.9	2.6

1. Data for 1962.
2. Data for 1958.
3. Data for 1974.
4. Ratios for second semester for 1974, 1976, 1977 are 5.9, 4.3, 5.1 respectively.
5. Ratios for July data, excluding school leavers, for 1970, 1973, 1976 to 1980 are 1.3, 1.3, 2.1, 2.2, 2.1, 2.0 respectively.
6. Rate for 1961.
7. Rate for 1971.
8. Rate for 1975.

NOTES TO TABLE M

Data are from national sources and replies to various OECD questionnaires of the Manpower and Social Affairs Committee. Where data are published for civilian labour force only or where data exclude conscripts, the Secretariat made the necessary adjustments with respect to the denominator. Annual figures are the average for the year unless otherwise specified.

Australia:
Annual rates refer to August of each year. Rates for 1966-1973 refer to civilian labour force only.

Belgium:
Data from Eurostat, *The Labour Force Sample Survey*. Rates are for the age group 14-24. There is a break in the series 1975-1977.

Canada:
Figures have been revised from 1970 onwards, hence figures for earlier years are not strictly comparable with the revised figures.

Denmark:
Data refer to May 1976, April 1977 and April 1978.

Finland:
Figures have been revised from 1976 onwards and are not strictly comparable with those of earlier years.

France:
Data are from the March labour force surveys carried out by INSEE (except for 1962 from the October survey). New definitions of unemployment and labour force were introduced into the survey in 1975 in line with the ILO definitions, hence earlier figures (which include the marginal labour force and the marginally unemployed) are not consistent with those of 1975 and after. Rates for 1962, 1965, 1970 and 1973 based on census definitions are 2.9, 3.0, 3.0, 3.8 respectively.

Germany:
The 1960-1973 data include 14-year-olds; unemployment figures refer to the registered unemployed at the end of September of each year. Labour force figures are based on various national sources including the microcensus.

Italy:
Rates are for the age group 14-24. Definitions used in the labour survey were thoroughly revised in January 1977.

Ireland:
1961 and 1971 figures from censuses of population. The 1975 and 1977 figures from Eurostat. *The Labour Force Sample Survey* rates are for the age group 14-24.

Netherlands:
Data from Eurostat, *The Labour Force Sample Survey*. Rates are for the age group 14-24. There is a break in the series 1973-1975.

New Zealand:
Unemployment figures refer to registered unemployed aged 15-30 and are the average for 12 months. Labour force figures for 1976 and forecasts for 1977 and 1978 refer to the age group 15-29 at 31st March of each year.

Norway:
The rates are for the age group 16-24.

Portugal:
All rates refer to the first semester of the year; rates for the second semester of 1974, 1975, 1976, 1977 are 4.1, 9.8, 13.9, 17.4 respectively.

Spain:
Rates are for the age group 14-24 and refer to the fourth quarter of each year. The labour force survey was revised in 1976, consequently figures for earlier years are not consistent with later years.

Sweden:
Rates are for the age group 16-24. The labour force survey was revised in 1970, hence figures for earlier years are not strictly comparable with later years.

United Kingdom:
All data refer to Great Britain only. The unemployment figures refer to registered unemployed aged less than 24 at July of each year and include school leavers. The labour force figures are for the age group 16-24 and refer to June of each year. July figures excluding school leavers for 1976, 1977, 1978, 1979 and 1980 are 8.0, 8.9, 8.4, 7.5 and 10.0 respectively.

United States:
Rates are for the age group 16-24.

Table N. Long-term unemployment by groups

AUSTRALIA

Unemployment by groups
In percent of total unemployment

	1977	1978	1979	1980
Male youth	28.7	28.4	28.0	26.9
Female youth	28.5	25.3	27.8	27.3
Male adults	25.8	27.5	24.5	27.6
Female adults	17.0	18.7	19.7	18.2
Total youth	57.2	53.7	55.8	54.2
Total adults	42.8	46.3	44.2	45.8
Men	54.5	56.0	52.4	54.6
Women	45.5	44.0	47.6	45.4

Unemployment of 6 months and over
In percent of total unemployment of 6 months and over

	1977	1978	1979	1980
Male youth	26.3	23.2	25.5	22.5
Female youth	30.1	25.6	30.0	26.8
Male adults	28.1	32.9	28.0	33.9
Female adults	15.5	18.3	16.5	16.8
Total youth	56.4	48.8	55.5	49.3
Total adults	43.6	51.2	44.5	50.7
Men	54.4	56.1	53.6	56.4
Women	45.6	43.9	46.4	43.6

Notes: Youth: less than 25 years.
Adults: 25 years and over.

Table N *(contd.)*

AUSTRIA

Unemployment by groups

In percent of total unemployment

	1973	1974	1975	1976	1977	1978	1979	1980
Male youth	2.4	4.3	11.9	10.5	10.7	11.9	10.9	10.5
Female youth	47.1	34.7	24.0	25.6	26.5	24.9	24.5	23.6
Prime-age males	4.8	7.4	16.2	13.5	12.5	15.6	16.4	16.1
Prime-age females	30.2	33.4	27.5	27.7	28.6	26.1	28.4	23.4
Older males	5.9	7.8	9.0	9.8	9.8	10.4	9.8	10.5
Older females	9.7	12.4	11.3	13.0	11.9	11.2	9.9	9.8
Total youth	49.5	39.0	36.0	36.1	37.2	36.8	35.5	34.1
Total prime-age adults	34.9	40.7	43.7	41.2	41.1	41.7	44.8	45.6
Total older workers	15.6	20.2	20.3	22.8	21.7	21.6	19.7	20.3
Men	13.1	19.5	37.1	33.7	33.0	37.8	37.2	37.2
Women	86.9	80.5	62.9	66.3	67.0	62.2	62.8	62.8

Unemployment of 6 months and over

In percent of total unemployment of 6 months and over

	1973	1974	1975	1976	1977	1978	1979	1980
Male youth	1.2	2.0	4.6	4.7	3.5	4.6	5.0	4.7
Female youth	31.8	30.6	16.6	14.6	14.5	13.2	13.3	12.9
Prime-age males	7.2	7.6	17.0	16.7	14.0	16.3	18.7	16.3
Prime-age females	28.3	29.4	27.4	25.3	26.8	23.3	26.4	25.6
Older males	16.1	15.1	18.8	22.2	25.0	26.6	23.4	25.3
Older females	15.4	15.3	15.6	16.5	16.2	16.1	13.2	15.1
Total youth	33.0	32.6	21.2	19.2	18.0	17.7	18.3	17.7
Total prime-age adults	35.5	37.1	44.4	42.0	40.8	39.7	45.1	41.9
Total older workers	31.5	30.3	34.4	38.8	41.2	42.6	36.6	40.4
Men	24.6	24.7	40.4	43.6	42.5	47.5	47.1	46.4
Women	75.4	75.3	59.6	56.4	57.5	52.5	52.9	53.6

Notes: Youth: less than 30 years.
Prime-age adults: 30-49 years.
Older workers: 50 years and over.

Table N *(contd.)*

BELGIUM

Unemployment by groups

In percent of total unemployment

	1972	1974	1975	1976	1977	1978	1979	1980	1981
Male youth	7.4	4.8	11.7	10.5	9.6	10.0	9.2	8.9	14.5
Female youth	9.8	15.9	19.8	21.8	22.1	21.8	21.8	20.5	19.4
Prime-age males	13.2	8.7	13.0	13.2	12.8	13.9	12.8	12.5	16.1
Prime-age females	14.3	20.1	20.2	24.0	26.7	29.1	31.1	31.1	28.2
Older males 1	11.2	9.9	7.9	7.9	7.5	7.8	7.5	7.0	7.6
Older females 1	8.9	11.2	8.4	8.2	8.4	8.7	8.9	8.5	7.1
Older males 2	28.6	24.0	15.6	11.1	9.5	6.9	6.9	9.8	5.7
Older females 2	6.5	5.4	3.5	3.3	3.4	1.8	1.9	1.7	1.3
Total youth	17.2	20.7	31.5	32.3	31.7	31.9	30.9	29.4	33.9
Total prime-age adults	27.6	28.8	33.2	37.2	39.5	42.9	43.9	43.6	44.3
Total older workers 1	20.1	21.1	16.3	16.1	15.9	16.6	16.4	15.5	14.7
Total older workers 2	35.1	29.4	19.1	14.4	12.9	8.6	8.8	11.6	7.1
Men	60.5	47.5	48.1	42.7	39.4	38.6	36.4	38.2	44.0
Women	39.5	52.5	51.9	57.3	60.6	61.4	63.6	61.8	56.0

Unemployment of 6 months and over

In percent of total unemployment of 6 months and over

	1972	1974	1975	1976	1977	1978	1979	1980	1981
Male youth	2.0	1.7	5.2	6.9	5.4	6.0	5.6	5.0	11.7
Female youth	5.6	10.4	17.0	20.8	21.3	21.5	20.7	20.5	19.1
Prime-age males	8.5	6.5	8.4	10.2	9.7	10.9	10.5	9.7	12.5
Prime-age females	13.7	19.3	22.1	25.6	29.6	32.9	34.5	36.5	32.3
Older males 1	12.4	11.1	8.8	8.0	7.8	8.1	7.8	7.4	7.3
Older females 1	10.8	13.0	11.3	9.9	10.1	10.5	10.5	10.8	8.7
Older males 2	37.6	30.9	21.9	14.1	11.7	8.0	8.1	7.9	6.6
Older females 2	9.4	7.2	5.4	4.3	4.5	2.2	2.3	2.3	1.7
Total youth	7.6	12.1	22.1	27.7	26.6	27.5	26.4	25.5	30.8
Total prime-age adults	22.2	25.7	30.5	35.9	39.3	43.7	44.9	46.2	44.8
Total older workers 1	23.3	24.1	20.1	17.9	17.9	18.6	18.3	18.1	16.0
Total older workers 2	46.9	38.0	27.3	18.5	16.2	10.2	10.4	10.1	8.3
Men	60.5	50.2	44.2	39.3	34.5	32.9	32.0	29.9	38.1
Women	39.5	49.8	55.8	60.7	65.4	67.1	68.0	70.1	61.9

Notes: Youth: less than 25 years.
Prime-age adults: 25-44 years.
Older workers 1: 45-54 years.
Older workers 2: 55 years and over.

Table N *(contd.)*

CANADA

Unemployment by groups

In percent of total unemployment

	1975	1976	1977	1978	1979	1980	1981
Male youth	27.6	28.0	27.7	26.5	26.2	26.7	27.1
Female youth	20.1	20.7	20.8	20.0	21.0	20.7	19.9
Prime-age males	18.3	18.5	18.4	18.6	18.3	19.5	19.3
Prime-age females	15.7	16.8	16.6	18.0	18.2	16.9	18.6
Older males	11.4	9.5	10.0	10.2	9.6	9.3	9.4
Older females	6.9	6.5	6.5	6.6	6.7	6.8	5.6
Total youth	47.7	48.7	48.5	46.6	47.2	47.4	47.1
Total prime-age adults	34.0	35.4	35.0	36.6	36.5	36.5	37.9
Total older workers	18.3	16.0	16.5	16.8	16.3	16.1	15.0
Men	57.3	56.0	56.1	55.3	54.1	55.5	55.8
Women	42.7	44.0	43.9	44.7	45.9	44.5	44.2

Unemployment of 14 weeks and over

In percent of total unemployment of 14 weeks and over

	1975	1976	1977	1978	1979	1980	1981
Male youth	23.8	24.7	24.6	23.3	22.3	22.6	24.0
Female youth	17.5	17.8	18.9	17.4	17.9	17.6	17.5
Prime-age males	19.0	20.2	19.3	19.2	20.3	22.0	21.9
Prime-age females	15.9	17.8	17.3	19.2	19.2	17.9	17.5
Older males	14.8	11.7	12.3	13.1	12.4	11.8	12.7
Older females	9.0	7.7	7.6	7.8	7.9	8.1	6.5
Total youth	41.3	42.5	43.5	40.7	40.2	40.2	41.4
Total prime-age adults	34.9	38.1	36.5	38.4	39.5	39.9	39.4
Total older workers	23.8	19.4	19.9	20.9	20.3	19.9	19.2
Men	57.7	56.7	56.1	55.5	55.0	58.4	58.6
Women	42.3	43.3	43.9	44.5	45.0	41.6	41.4

Notes: Youth: less than 25 years.
Prime-age adults: 25-44 years.
Older workers: 45 years and over.

Table N *(contd.)*

FRANCE

Unemployment by groups

In percent of total unemployment

	1968	1970	1973	1974	1975	1976	1977	1978	1979	1980
Male youth	19.2	20.3	18.1	16.3	16.5	14.6	15.5	14.8	14.7	13.4
Female youth	19.4	20.6	22.5	25.7	23.2	26.6	25.6	24.4	25.6	30.4
Prime-age males	23.5	19.6	20.5	19.5	19.2	18.3	16.7	18.7	19.3	16.0
Prime-age females	15.4	15.1	18.4	21.1	25.9	25.6	26.0	26.4	24.8	24.4
Older males	14.9	15.0	12.5	9.5	8.4	8.1	8.6	9.3	9.0	8.0
Older females	7.6	9.5	8.0	8.0	6.7	6.8	7.6	6.4	6.6	7.8
Total youth	38.6	40.8	40.6	42.0	39.7	41.2	41.1	39.2	40.3	43.8
Total prime-age adults	38.9	34.7	38.8	40.6	45.2	43.9	42.7	45.1	44.1	40.4
Total older workers	22.4	24.5	20.6	17.4	15.2	14.9	16.2	15.7	15.6	15.7
Men	57.6	54.9	51.1	45.2	44.2	41.0	40.8	42.8	43.0	37.4
Women	42.4	45.1	48.9	54.8	55.8	59.0	59.2	57.2	57.0	62.6

Unemployment of 6 months and over

In percent of total unemployment of 6 months and over

	1968	1970	1973	1974	1975	1976	1977	1978	1979	1980
Male youth	13.9	10.8	10.7	8.5	13.2	11.1	11.7	11.3	11.5	9.8
Female youth	16.6	16.7	22.0	24.2	25.0	25.0	25.4	25.7	26.4	27.5
Prime-age males	21.6	16.3	17.0	17.3	13.3	17.4	14.3	15.7	16.7	14.7
Prime-age females	16.3	17.8	18.9	20.7	28.3	26.5	28.1	27.5	26.0	25.9
Older males	21.7	24.0	20.3	16.8	10.1	11.0	10.7	11.4	10.1	11.0
Older females	10.0	14.4	11.1	12.7	10.0	9.1	9.8	8.4	9.3	11.0
Total youth	30.4	27.5	32.6	32.6	38.2	36.1	37.2	37.0	37.9	37.3
Total prime-age adults	37.9	34.1	35.9	37.9	41.6	43.9	42.4	43.2	42.8	40.7
Total older workers	31.7	38.4	31.4	29.5	20.2	20.1	20.4	19.8	19.4	22.0
Men	57.2	51.2	47.9	42.5	36.6	39.5	36.7	38.5	38.4	35.5
Women	42.8	48.8	52.1	57.5	63.4	60.5	63.3	61.5	61.6	64.5

Notes: Youth: less than 25 years.
Prime-age adults: 25-49 years.
Older workers: 50 years and over.

Table N *(contd.)*

GERMANY

Unemployment by groups
In percent of total unemployment

	1968	1970	1973	1974	1975	1976	1977	1978	1979	1980
Male youth	4.4	5.4	8.3	13.1	14.3	12.1	11.9	11.0	9.2	10.8
Female youth	7.8	13.4	15.0	15.3	14.3	16.6	17.5	17.5	16.9	16.5
Prime-age males	13.7	14.2	17.9	23.7	25.9	22.0	20.9	19.5	17.6	18.5
Prime-age females	13.3	21.1	21.4	20.8	20.4	22.3	23.1	23.8	24.5	24.0
Older males 1	8.5	7.0	7.5	7.7	7.7	7.6	7.3	7.3	7.2	7.2
Older females 1	5.7	8.1	9.0	7.9	7.2	7.5	7.5	7.6	7.9	7.5
Older males 2	39.7	23.3	14.7	7.3	6.4	7.1	6.5	7.2	9.0	8.2
Older females 2	7.0	7.6	6.2	4.1	3.8	4.8	5.3	6.2	7.7	7.3
Total youth	12.1	18.8	23.3	28.4	28.6	28.7	29.4	28.5	26.1	27.3
Total prime-age adults	27.0	35.2	39.3	44.5	46.3	44.3	44.0	43.3	42.1	42.5
Total older workers 1	14.1	15.0	16.5	15.6	14.9	15.1	14.8	14.9	15.1	14.7
Total older workers 2	46.7	31.0	20.9	11.4	10.2	11.8	11.8	13.4	16.7	15.5
Men	66.2	49.9	48.5	51.9	54.3	48.8	46.6	45.0	43.0	44.8
Women	33.8	50.1	51.5	48.1	45.7	51.2	53.4	55.0	57.0	55.2

Unemployment of 6 months and over
In percent of total unemployment of 6 months and over

	1968	1970	1973	1974	1975	1976	1977	1978	1979	1980
Male youth	0.7	0.8	1.9	5.3	9.2	6.3	6.2	5.3	3.7	4.4
Female youth	1.8	3.3	5.7	8.9	9.4	10.0	11.1	10.9	10.1	9.2
Prime-age males	9.4	8.9	12.9	20.1	26.1	22.5	20.8	18.7	15.0	15.8
Prime-age females	6.3	10.5	16.7	21.4	21.1	22.6	23.6	24.1	24.3	23.2
Older males 1	9.1	8.9	10.8	11.6	10.5	10.9	10.5	10.3	10.2	10.3
Older females 1	3.3	4.9	9.5	10.6	8.9	9.9	9.8	9.9	10.1	10.2
Older males 2	62.9	53.8	32.7	14.9	9.6	10.9	9.9	11.3	14.3	14.2
Older females 2	6.7	9.0	9.8	7.2	5.2	6.9	8.0	9.5	12.1	12.6
Total youth	2.5	4.1	7.6	14.2	18.6	16.3	17.3	16.2	13.8	13.5
Total prime-age adults	15.6	19.3	29.6	41.5	47.2	45.1	44.4	42.8	39.4	39.1
Total older workers 1	12.4	13.8	20.3	22.2	19.4	20.9	20.4	20.2	20.4	20.5
Total older workers 2	69.5	62.8	42.5	22.1	14.8	17.8	17.9	20.8	26.4	26.9
Men	82.0	72.4	58.4	51.9	55.4	50.6	47.4	45.6	43.2	44.8
Women	18.0	27.6	41.6	48.1	44.6	49.4	52.6	54.4	56.8	55.2

Notes: Youth: less than 25 years.
Prime-age adults: 25-44 years.
Older workers 1: 45-54 years.
Older workers 2: 55 years and over.

Table N *(contd.)*

NETHERLANDS

Unemployment by groups
In percent of total unemployment

	1973	1974	1975	1976	1977	1978	1979	1980	1981
Male youth	21.0	21.9	25.4	24.5	22.4	21.0	20.2	20.2	24.1
Female youth	7.6	8.9	10.6	11.8	14.6	18.0	22.0	21.5	19.4
Prime-age males	49.3	49.2	47.1	45.4	42.6	39.4	36.6	37.3	39.8
Prime-age females	8.9	9.1	8.1	9.0	10.6	12.5	13.0	13.5	11.4
Older males	11.2	9.2	7.6	8.0	8.3	7.6	6.8	6.4	4.5
Older females	1.9	1.7	1.3	1.3	1.4	1.5	1.4	1.2	0.8
Total youth	28.7	30.8	36.0	36.3	37.0	39.0	42.2	41.6	43.6
Total prime-age adults	58.3	58.3	55.1	54.4	53.3	52.0	49.6	50.7	51.2
Total older workers	13.1	10.9	8.9	9.3	9.8	9.1	8.2	7.6	5.2
Men	81.6	80.3	80.0	78.0	73.4	67.9	63.6	63.8	68.4
Women	18.4	19.7	20.0	22.0	26.6	32.1	36.4	36.2	31.6

Unemployment of 6 months and over
In percent of total unemployment of 6 months and over

	1973	1974	1975	1976	1977	1978	1979	1980	1981
Male youth	12.2	11.8	18.1	19.9	16.5	15.4	14.6	13.2	18.8
Female youth	3.4	4.3	7.0	9.0	11.7	15.2	18.2	19.0	18.1
Prime-age males	53.6	53.5	51.2	48.8	46.0	42.4	40.4	39.2	42.3
Prime-age females	9.0	10.4	9.0	9.3	11.3	13.3	14.4	15.8	13.0
Older males	18.5	16.6	12.3	11.0	12.3	11.4	10.3	10.7	6.6
Older females	3.3	3.4	2.4	1.9	2.2	2.2	2.1	2.1	1.2
Total youth	15.6	16.1	25.1	29.0	28.2	30.6	32.8	32.2	36.9
Total prime-age adults	62.7	63.9	60.1	58.1	57.3	55.8	54.8	55.0	55.3
Total older workers	21.8	20.0	14.7	12.9	14.5	13.6	12.5	12.8	7.8
Men	84.2	81.8	81.6	79.7	74.9	69.2	65.4	63.1	67.7
Women	15.8	18.2	18.4	20.3	25.1	30.8	34.6	36.9	32.3

Notes: Youth: less than 25 years.
Prime-age adults: 25-54 years.
Older workers: 55 years and over.

Table N *(contd.)*

NORWAY

Unemployment by groups

In percent of total unemployment

	1973	1974	1975	1976	1977	1978	1979	1980
Male youth	28.2	28.5	29.8	32.3	29.9	29.2	32.1	30.8
Female youth	8.5	12.7	14.6	13.9	15.2	17.3	15.2	17.6
Prime-age males	18.6	16.2	15.0	17.0	16.0	15.8	19.2	17.0
Prime-age females	6.9	8.5	10.5	9.4	10.5	11.2	9.5	10.6
Older males	29.5	26.0	21.4	19.6	20.0	17.9	17.6	16.7
Older females	8.2	8.1	8.6	7.7	8.4	8.5	6.4	7.2
Total youth	36.7	41.2	44.4	46.3	45.1	46.5	47.3	48.4
Total prime-age adults	25.5	24.5	25.6	26.5	26.5	27.0	28.7	27.6
Total older workers	37.7	34.1	30.0	27.3	28.4	26.4	24.0	24.0
Men	76.3	70.6	66.3	69.0	65.9	62.9	68.9	64.6
Women	23.7	29.4	33.7	31.0	34.1	37.1	31.1	35.4

Unemployment of 6 months and over

In percent of total unemployment of 6 months and over

	1973	1974	1975	1976	1977	1978	1979	1980
Male youth	7.9	3.9	2.6	10.3	8.6	5.2	8.9	6.6
Female youth	2.9	2.1	3.8	6.8	5.9	7.7	9.2	8.5
Prime-age males	7.1	2.7	3.3	11.6	9.7	9.2	11.2	12.0
Prime-age females	3.5	3.0	4.4	13.6	12.3	13.0	12.8	13.2
Older males	60.0	69.1	66.7	37.3	41.7	41.1	40.3	40.2
Older females	18.6	19.2	19.2	20.5	21.8	23.8	17.6	19.4
Total youth	10.8	6.0	6.4	17.0	14.5	12.9	18.1	15.1
Total prime-age adults	10.6	5.7	7.7	25.2	22.1	22.2	24.0	25.3
Total older workers	78.6	88.3	85.9	57.8	63.5	64.9	57.9	59.6
Men	75.0	75.7	72.7	59.2	60.0	55.5	60.5	58.9
Women	25.0	24.3	27.3	40.8	40.0	44.5	39.5	41.1

Notes: Youth: less than 30 years.
Prime-age adults: 30-49 years.
Older workers: 50 years and over.

Table N *(contd.)*

SWEDEN

Unemployment by groups
In percent of total unemployment

	1977	1978	1979	1980	1981
Male youth	18.0	19.9	19.5	19.3	18.7
Female youth	22.2	20.4	20.0	22.7	18.4
Prime-age males	17.6	19.2	17.9	16.3	19.8
Prime-age females	18.8	17.3	18.9	20.2	20.1
Older males 1	5.0	5.2	4.4	4.5	5.8
Older females 1	6.2	4.8	4.6	4.7	5.7
Older males 2	6.5	7.5	7.9	6.9	6.0
Older females 2	5.7	5.7	6.8	5.4	5.5
Total youth	40.2	40.3	39.5	42.0	37.1
Total prime-age adults	36.4	36.5	36.8	36.5	39.9
Total older workers 1	11.2	10.0	9.0	9.2	11.5
Total older workers 2	12.2	13.1	14.7	12.3	11.5
Men	47.1	51.8	49.7	47.0	50.3
Women	52.9	48.2	50.3	53.0	49.7

Unemployment of 6 months and over
In percent of total unemployment of 6 months and over

	1977	1978	1979	1980	1981
Male youth	9.1	10.0	8.1	11.1	12.7
Female youth	15.7	11.2	11.0	8.3	14.8
Prime-age males	14.0	19.4	16.2	15.3	19.6
Prime-age females	17.4	15.9	16.8	18.8	18.0
Older males 1	5.0	7.1	6.9	6.2	5.3
Older females 1	9.9	5.9	5.8	5.6	7.9
Older males 2	12.4	15.3	16.8	20.1	11.1
Older females 2	16.5	15.3	18.5	14.6	10.6
Total youth	24.8	21.2	19.1	19.4	27.5
Total prime-age adults	31.4	35.3	32.9	34.0	37.6
Total older workers 1	14.9	12.9	12.7	11.8	13.2
Total older workers 2	28.9	30.6	35.3	34.7	21.7
Men	40.5	51.8	48.0	52.8	48.7
Women	59.5	48.2	52.0	47.2	51.3

Notes: Youth: less than 25 years.
Prime-age adults: 25-44 years.
Older workers 1: 45-54 years.
Older workers 2: 55 years and over.

Table N *(contd.)*

UNITED KINGDOM

Unemployment by groups

In percent of total unemployment

	1962	1966	1970	1973	1976	1977	1978	1979	1980	1981
Male youth	13.3	15.2	18.5	20.7	22.6	20.5	19.7	19.0	20.4	23.0
Female youth	10.2	10.5	7.5	11.5	16.7	20.3	22.4	21.6	16.0	15.3
Prime-age males	27.2	26.3	30.3	26.8	27.9	26.1	25.2	24.3	24.8	26.1
Prime-age females	9.8	6.5	3.6	3.8	5.2	6.4	7.1	7.9	9.6	9.0
Older males 1	12.5	11.7	12.7	11.9	9.7	9.0	8.5	8.6	9.0	8.9
Older females 1	4.8	3.7	2.4	2.3	2.2	2.6	2.7	2.8	3.2	2.9
Older males 2	19.4	23.5	23.4	21.3	14.5	13.7	13.1	14.0	14.9	13.0
Older females 2	2.8	2.5	1.6	1.6	1.3	1.4	1.5	1.8	2.1	1.7
Total youth	23.5	25.7	26.0	32.2	39.3	40.8	42.1	40.6	36.4	38.3
Total prime-age adults	37.0	32.8	33.9	30.6	33.0	32.5	32.2	32.2	34.5	35.2
Total older workers 1	17.3	15.4	15.1	14.2	11.9	11.6	11.2	11.4	12.2	11.8
Total older workers 2	22.2	26.0	25.0	22.9	15.8	15.1	14.6	15.7	16.9	14.8
Men	72.4	76.7	84.9	80.7	74.6	69.3	66.4	65.9	69.1	71.0
Women	27.6	23.3	15.1	19.3	25.4	30.7	33.6	34.1	30.9	29.0

Unemployment of 6 months and over

In percent of total unemployment of 6 months and over

	1962	1966	1970	1973	1976	1977	1978	1979	1980	1981
Male youth	3.5	3.4	6.1	10.7	15.8	16.1	15.4	13.6	12.9	18.5
Female youth	2.7	2.7	1.8	3.2	5.8	9.7	11.5	10.6	10.7	12.3
Prime-age males	21.3	18.9	22.3	26.2	29.2	27.8	27.4	25.9	24.2	25.2
Prime-age females	6.1	4.7	2.3	2.6	3.9	5.6	6.8	7.7	8.9	8.6
Older males 1	17.2	14.9	16.0	15.9	13.8	12.3	11.9	12.3	12.0	10.5
Older females 1	4.8	4.2	2.8	2.7	2.6	3.2	3.5	3.9	4.0	3.5
Older males 2	40.4	47.6	46.3	36.2	26.9	23.2	21.3	23.2	24.1	18.8
Older females 2	4.0	3.6	2.4	2.3	2.0	2.1	2.3	2.8	3.2	2.5
Total youth	6.2	6.1	7.8	13.9	21.5	25.8	26.9	24.3	23.6	30.9
Total prime-age adults	27.3	23.6	24.7	28.8	33.1	33.4	34.1	33.6	33.1	33.8
Total older workers 1	22.0	19.1	18.8	18.7	16.4	15.5	15.3	16.1	16.0	14.1
Total older workers 2	44.4	51.2	48.7	38.6	28.9	25.3	23.6	26.0	27.3	21.3
Men	82.4	84.9	90.7	89.1	85.7	79.3	75.9	75.0	73.2	73.1
Women	17.6	15.1	9.3	10.9	14.3	20.7	24.1	25.0	26.8	26.9

Notes: Youth: less than 25 years.
Prime-age adults: 25-44 years.
Older workers 1: 45-54 years.
Older workers 2: 55 years and over.

Table N *(contd.)*

UNITED STATES

Unemployment by groups

In percent of total unemployment

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Male youth	27.4	27.0	27.2	25.7	25.4	25.0	25.3	25.4	25.9	25.6
Female youth	22.6	24.4	23.8	20.0	20.8	22.2	24.0	23.7	19.8	19.2
Prime-age males	15.2	14.7	15.6	18.7	18.1	17.6	15.9	16.6	21.1	21.3
Prime-age females	14.4	15.2	15.3	15.6	16.3	17.2	17.9	17.6	17.6	18.3
Older males 1	5.6	5.1	5.0	6.4	5.7	4.8	4.6	4.7	4.9	5.0
Older females 1	4.9	4.9	4.9	5.0	4.7	5.0	4.5	4.5	4.2	4.0
Older males 2	6.1	5.3	4.8	5.1	5.3	4.6	4.6	4.4	4.0	3.8
Older females 2	3.7	3.4	3.4	3.4	3.6	3.6	3.1	3.1	2.9	2.7
Total youth	50.0	51.4	51.0	45.7	46.2	47.2	49.3	49.1	45.7	44.8
Total prime-age adults	29.7	29.9	30.9	34.3	34.3	34.8	33.9	34.2	38.7	39.6
Total older workers 1	10.5	10.0	9.9	11.4	10.4	9.8	9.2	9.2	9.1	9.0
Total older workers 2	9.8	8.7	8.2	8.6	8.9	8.2	7.6	7.5	6.5	6.5
Men	54.4	52.0	52.6	56.0	54.4	52.1	50.5	51.0	55.8	55.7
Women	45.6	48.0	47.4	44.0	45.6	47.9	49.5	49.0	44.2	44.3

Unemployment of 6 months and over

In percent of total unemployment of 6 months and over

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Male youth	17.8	17.6	18.3	19.3	17.7	18.1	17.2	16.2	19.6	20.8
Female youth	10.3	13.4	12.4	10.3	10.9	11.6	13.3	13.7	10.7	8.7
Prime-age males	21.9	21.8	23.2	24.5	24.2	23.9	22.3	24.6	30.1	31.9
Prime-age females	14.1	12.2	11.3	14.7	15.1	15.8	16.7	16.3	15.9	16.5
Older males 1	10.0	9.9	9.2	9.7	10.1	8.8	9.3	9.2	8.7	8.6
Older females 1	7.1	6.6	6.7	6.4	6.4	5.9	5.2	6.0	5.4	4.5
Older males 2	12.6	12.2	12.4	9.2	9.5	10.0	10.7	9.4	6.5	5.8
Older females 2	6.2	6.3	6.5	5.8	6.0	5.9	5.2	4.6	3.1	3.1
Total youth	28.1	31.1	30.7	29.6	28.7	29.8	30.5	29.8	30.3	29.5
Total prime-age adults	35.9	34.0	34.5	39.3	39.3	39.7	39.0	41.0	45.9	48.4
Total older workers 1	17.1	16.4	15.9	16.1	16.5	14.7	14.5	15.2	14.1	13.2
Total older workers 2	18.9	18.5	18.9	15.0	15.5	15.9	16.0	14.0	9.6	8.9
Men	62.3	61.5	63.1	62.8	61.5	60.8	59.6	59.4	64.9	67.2
Women	37.7	38.5	36.9	37.2	38.5	39.2	40.4	40.6	35.1	32.8

Notes: Youth: less than 25 years.
Prime-age adults: 25-44 years.
Older workers 1: 45-54 years.
Older workers 2: 55 years and over.

Table O. **Total expenditure on unemployment compensation as a percentage of GDP**

$$\frac{UC}{GDP} \times 100$$

	1970	1975	1978	1979	1980
Australia	0.03	0.70	0.90	0.81	..
Austria	0.29	0.39	0.47	0.50	..
Belgium	0.45	1.58	2.32	2.47	..
Canada	0.80	1.89	1.94	1.51	1.48
Denmark	..	2.42	3.11	2.78	..
Finland	0.25	0.21	0.85	0.65	..
France	0.14	0.56	1.00	1.16	1.19
Germany	0.64	1.69	1.26	1.20	1.25
Greece	0.19	0.35	0.32	0.32	..
Ireland	1.27	2.19	1.81	1.67	..
Italy	0.18	0.52	0.52	0.48	0.40
Japan	0.27	0.47	0.42	0.39	0.39
The Netherlands	0.24	0.74	0.43	0.50	0.55
New Zealand	0.02	0.07	0.31	0.32	..
Norway	0.10	0.12	0.16	0.21	0.21
Spain	0.14	0.48	1.22	1.64	2.02
Sweden	0.26	0.26	0.46	0.45	..
Switzerland	..	0.17	0.12	0.12	..
United Kingdom	0.55	0.79	0.91	0.78	1.04
United States	0.93	1.17	0.45	0.41	0.64

Source: National sources.

Diagram A

AGE AND SEX SPECIFIC PARTICIPATION RATES - TIME SERIES

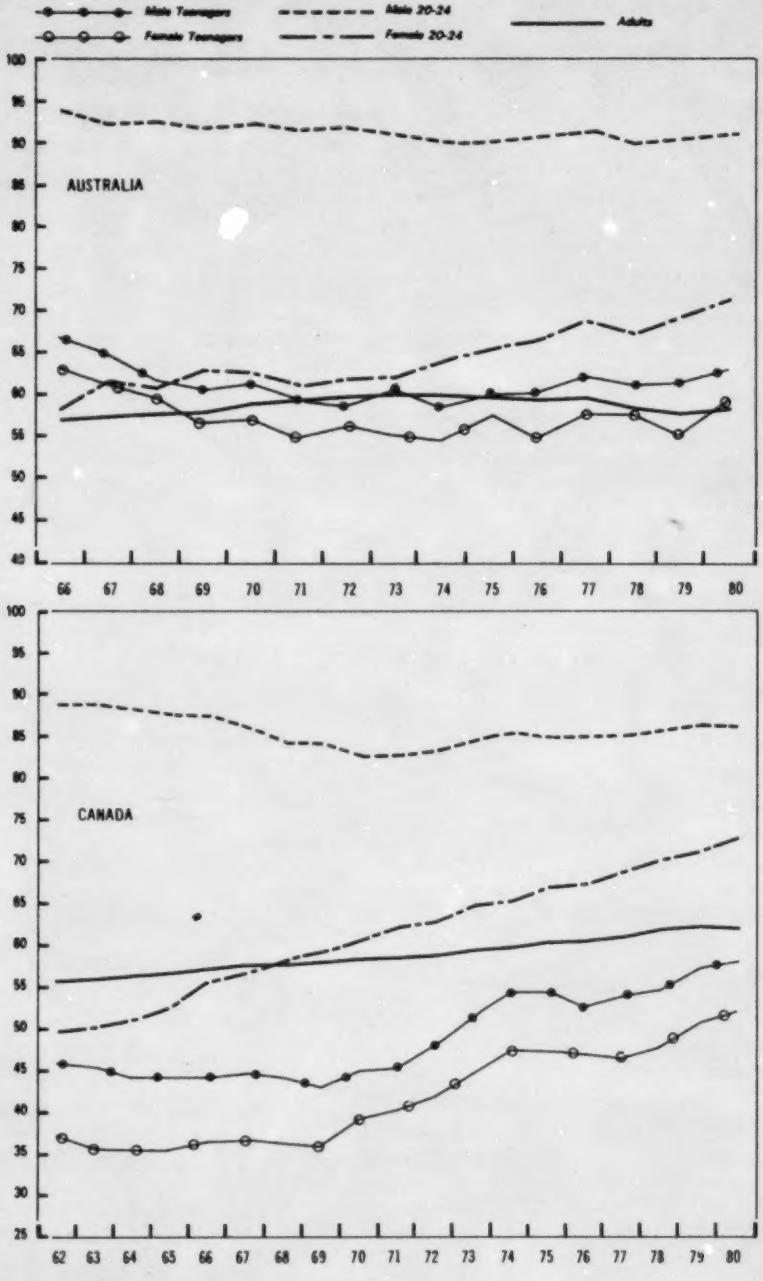


Diagram A (cont'd)

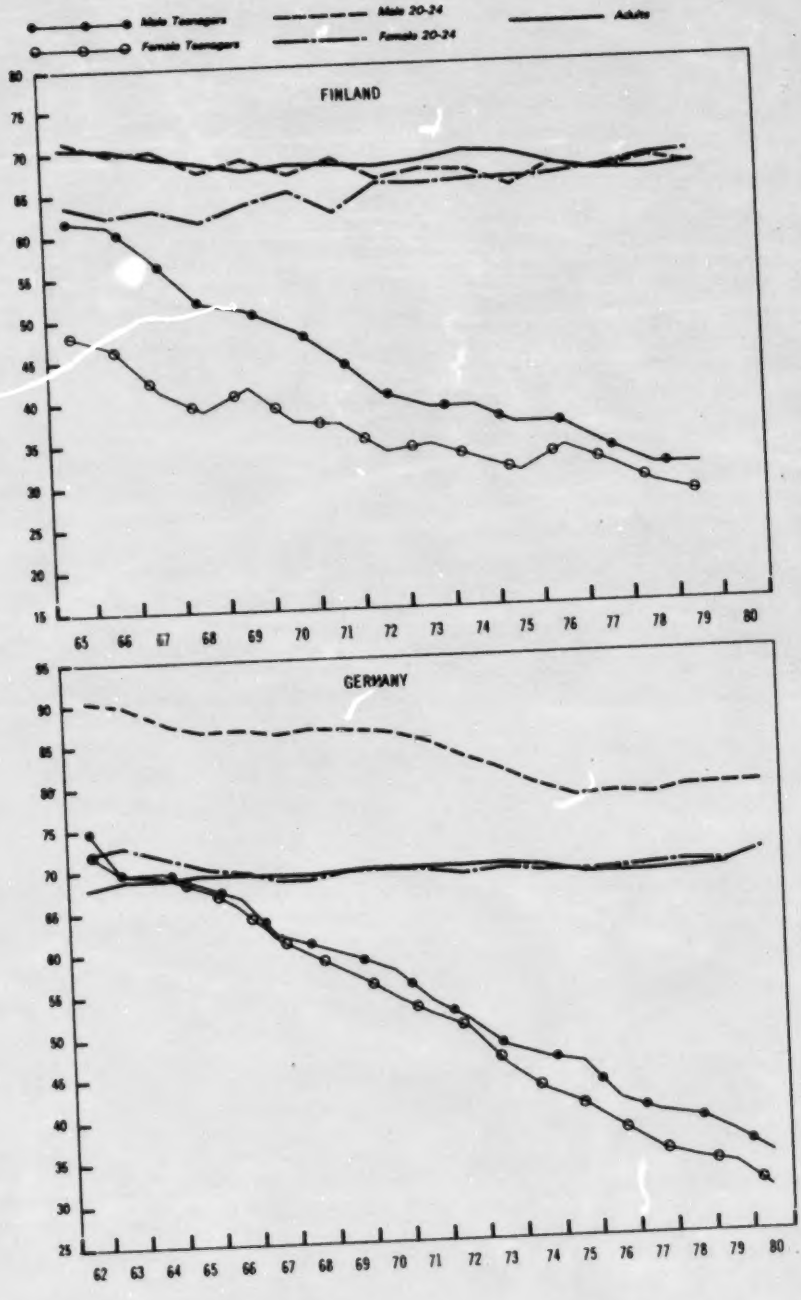


Diagram A (cont'd)

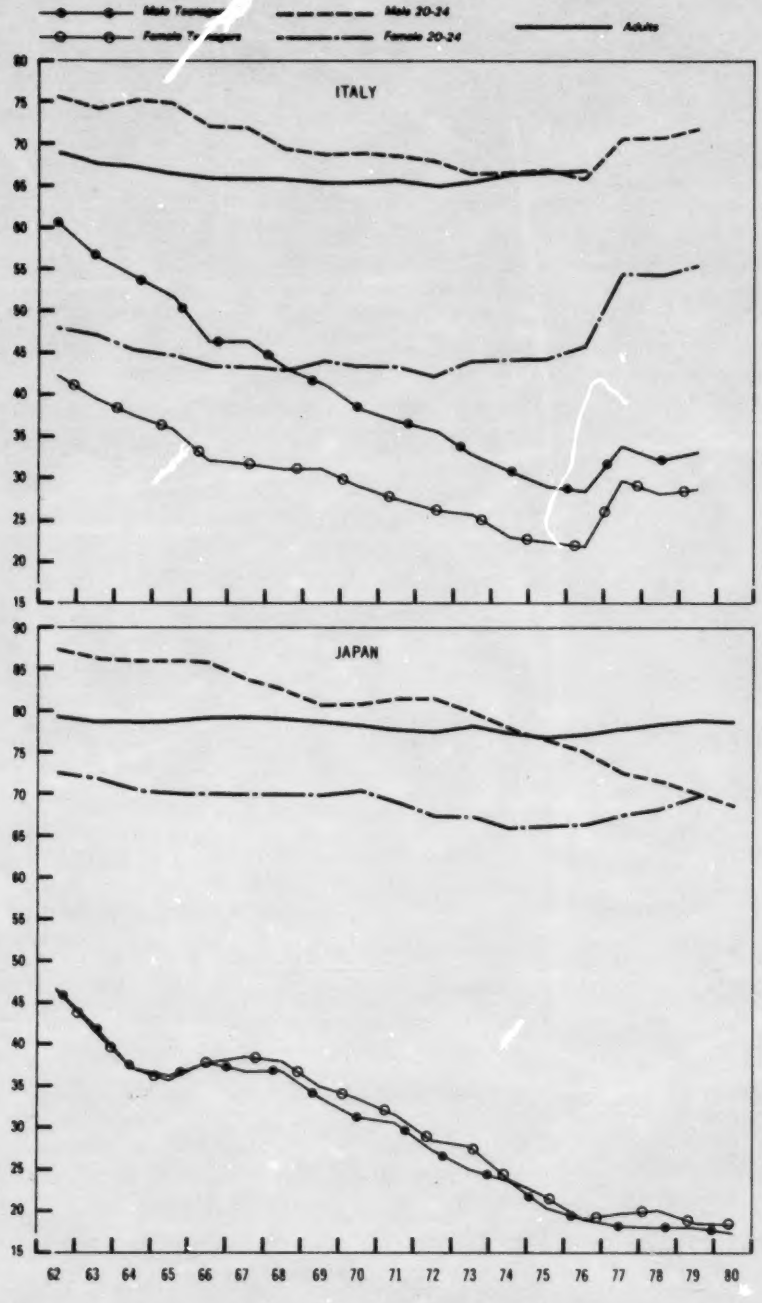


Diagram A (cont'd)

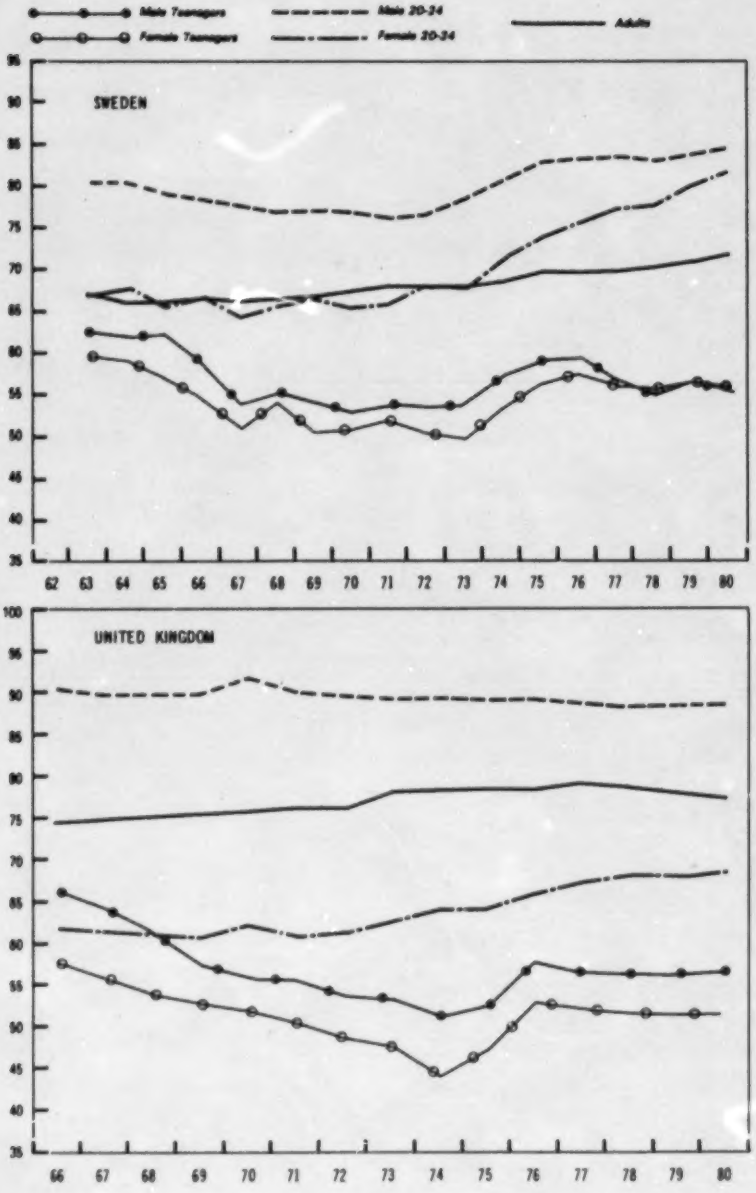
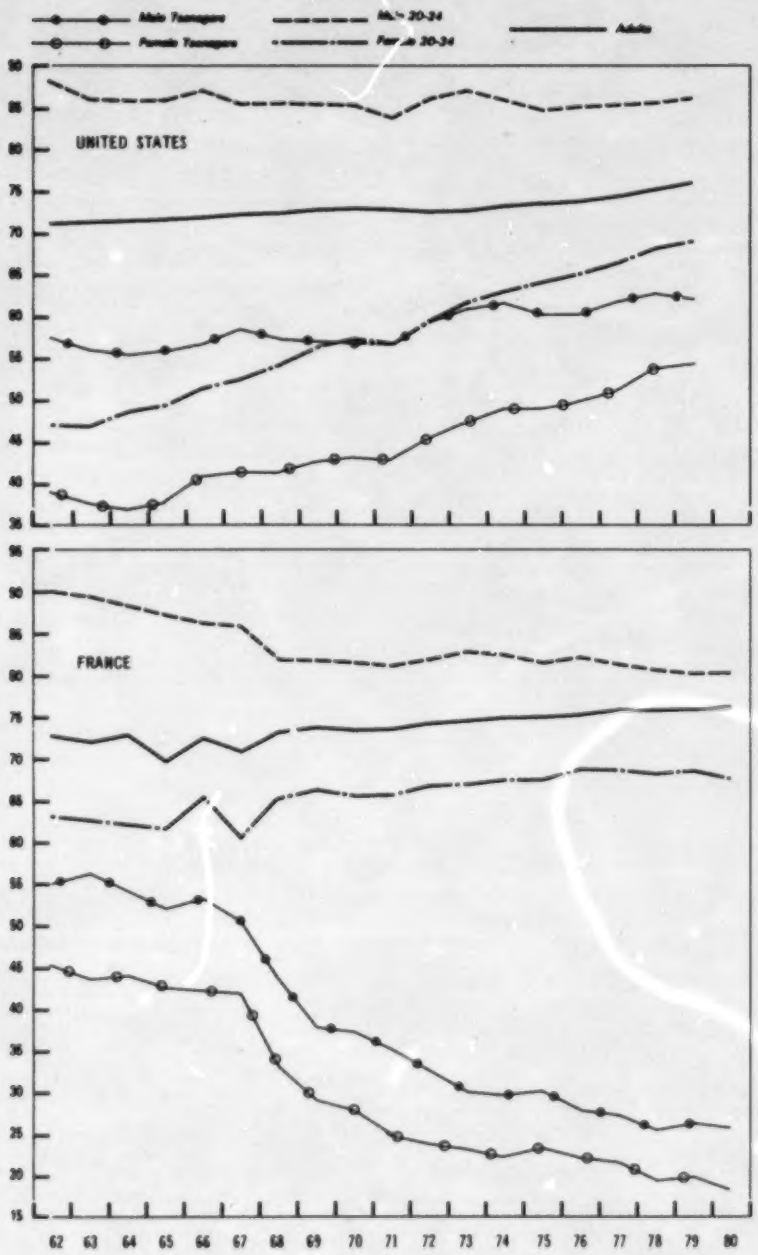


Diagram A (cont'd)



NOTES TO DIAGRAM A

Australia:
Numerator refers to the civilian labour force, the denominator refers to the civilian population. The adult rate refers to the age group 25 +.

Canada:
Notes as for Australia.

Finland:
Labour force figures exclude conscripts. The adult rate refers to the age group 25-74.

Germany:
For the adult rate, labour force refers to persons 25 and over and population to persons aged 25-64. The 1980 figures are estimates.

Italy:
Labour force figures exclude conscripts. The teenage rate refers to persons 14-19 and for adults, labour force refers to persons 25 and over and population to persons aged 25-64.

Japan:
For the adults, labour force refers to persons aged 25-64.

Sweden:
The teenage group refers to persons aged 16-19 and adults to persons 25-74.

United Kingdom:
Data are for Great Britain only. The teenage group refers to persons 16-19, the adult labour force 25 and over and population to 25-64 years.

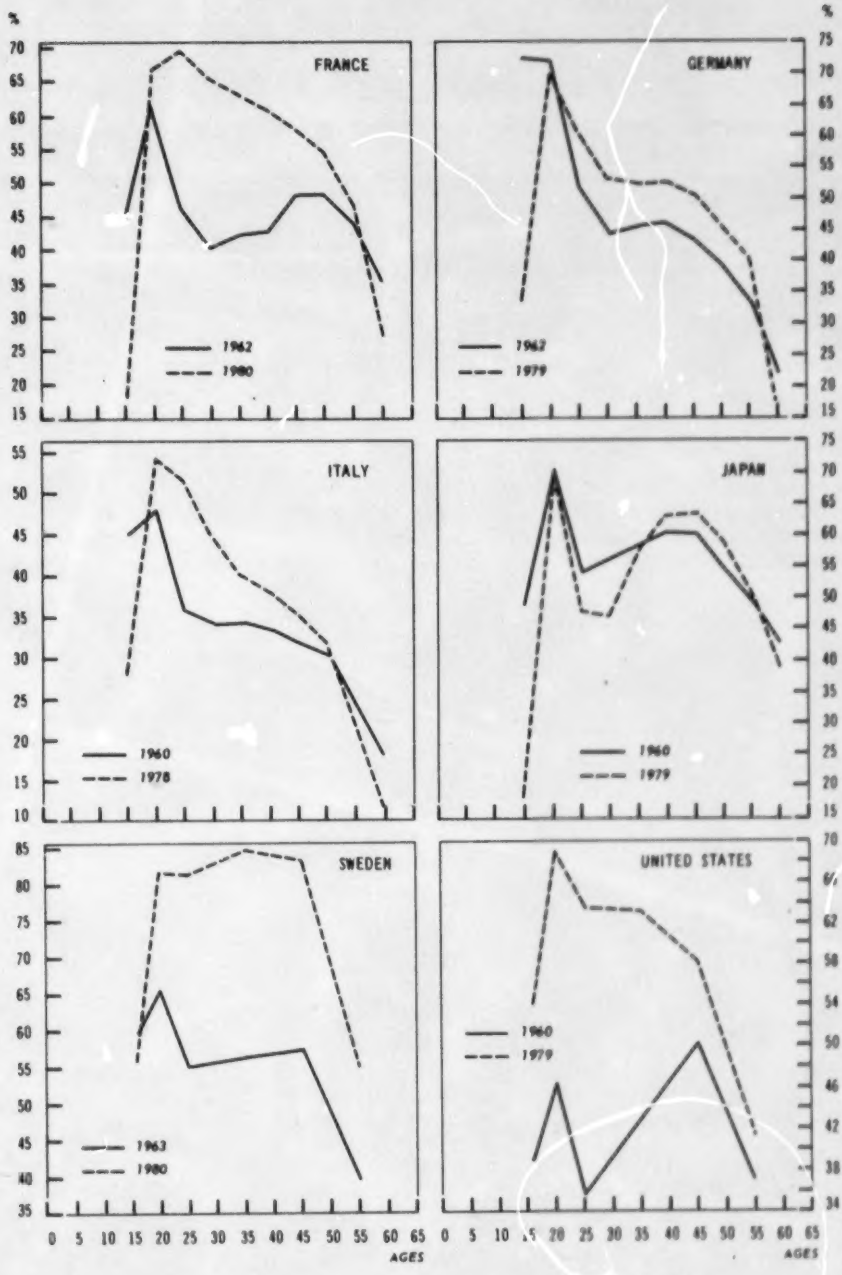
United States:
Labour force includes armed forces and population refers to total population including armed forces overseas. The teenage rate refers to persons aged 16-19, the adult labour force to persons 25 and over and population to 25-64.

In all cases figures refer to the same month or months as for the unemployment rates shown in Table M below. See notes to that table.

146

Diagram B

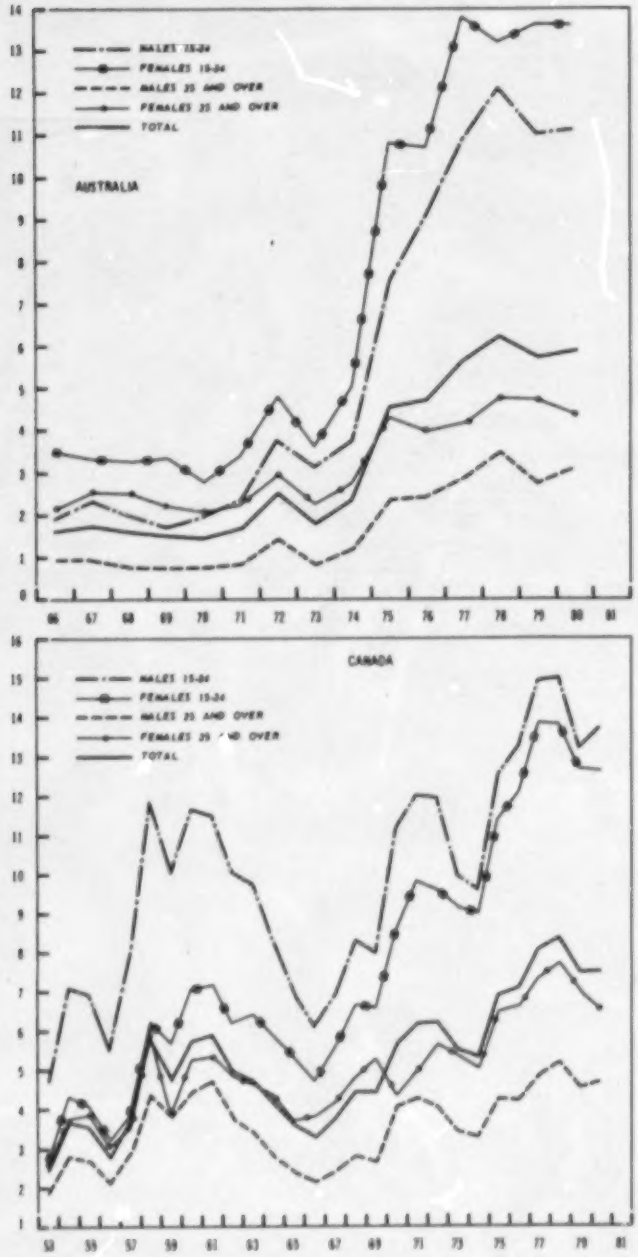
PARTICIPATION RATES - AGE PROFILES



Sources: Compiled from national data. See notes to Diagram A and Table M.

Diagram C

AGE AND SEX SPECIFIC UNEMPLOYMENT RATES - TIME SERIES*



* See notes and sources for Table M.

Diagram C (cont'd)

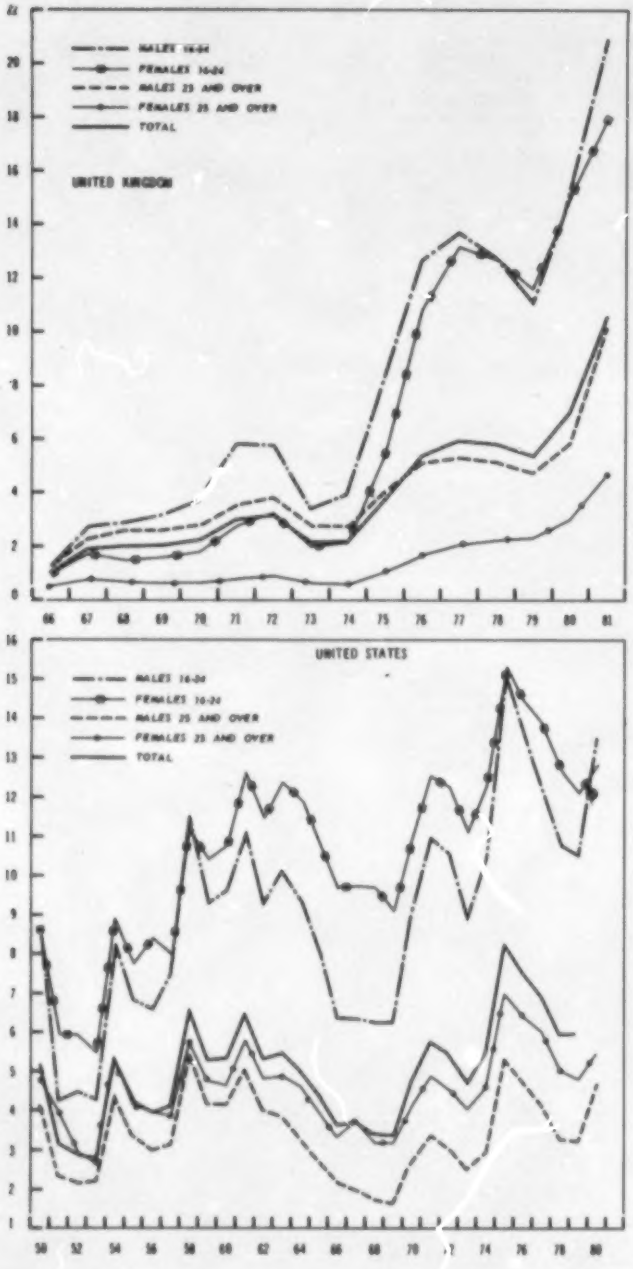

MALES 16-24
FEMALES 16-24
MALES 25 AND OVER
FEMALES 25 AND OVER
TOTAL
UNITED KINGDOM
66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81
UNITED STATES
MALES 16-24
FEMALES 16-24
MALES 25 AND OVER
FEMALES 25 AND OVER
TOTAL
50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80

Diagram C (cont'd)

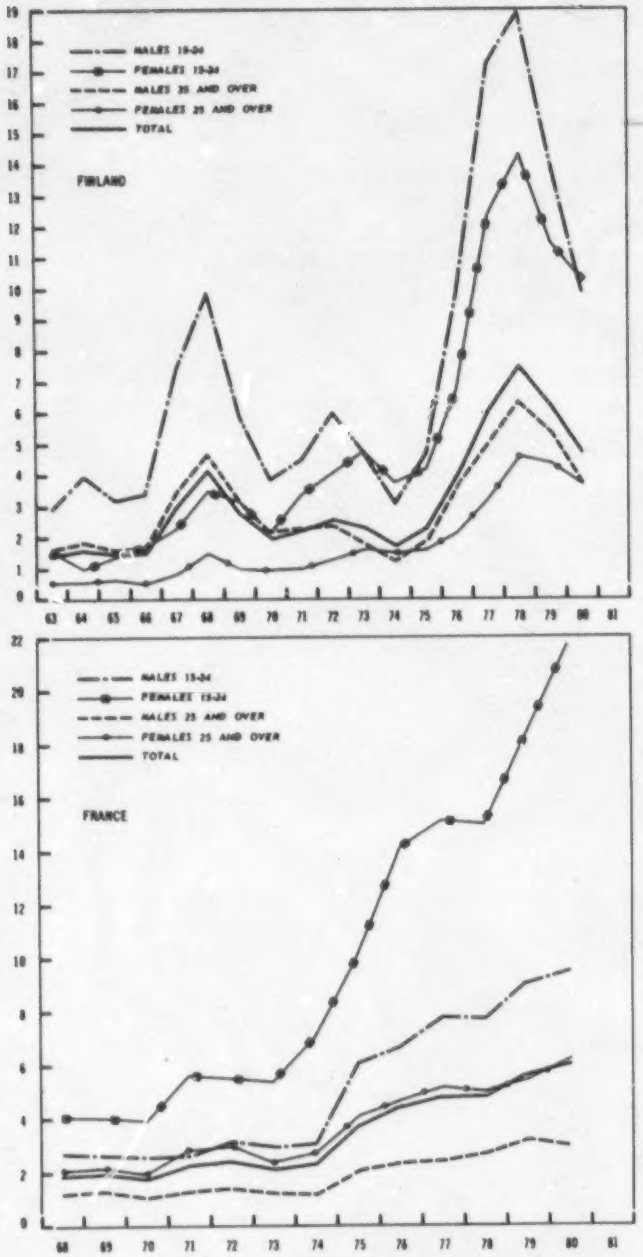

MALES 15-24
FEMALES 15-24
MALES 25 AND OVER
FEMALES 25 AND OVER
TOTAL
FINLAND
63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81
MALES 15-24
FEMALES 15-24
MALES 25 AND OVER
FEMALES 25 AND OVER
TOTAL
FRANCE
68 69 70 71 72 73 74 75 76 77 78 79 80 81

Diagram C (cont'd)

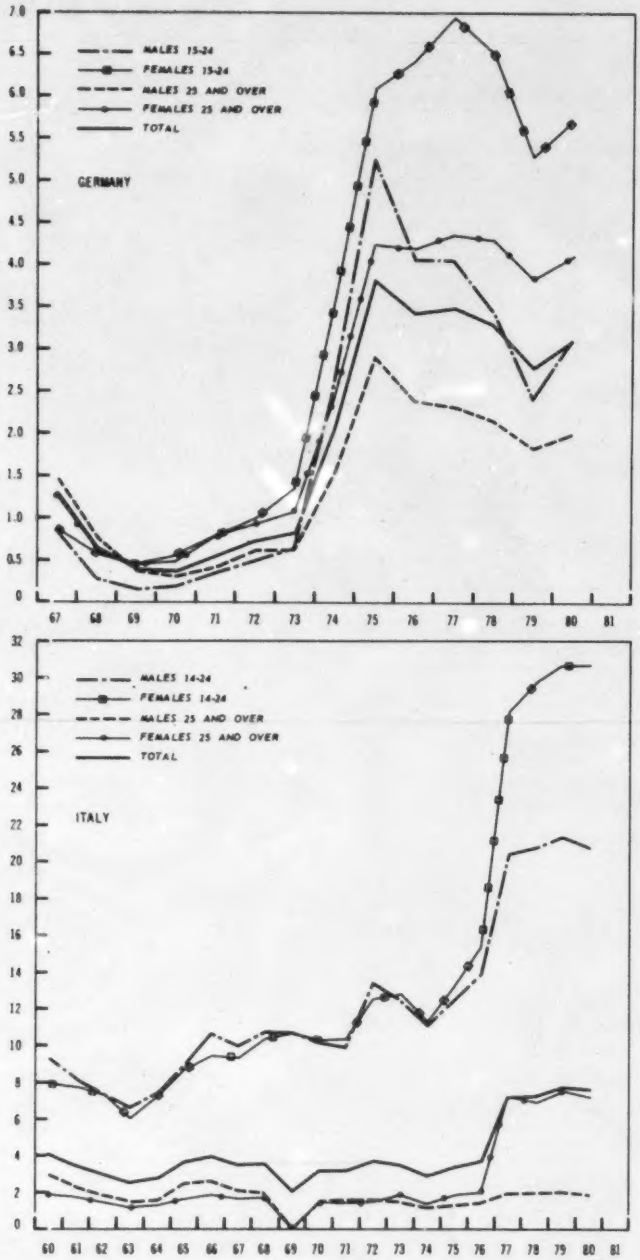
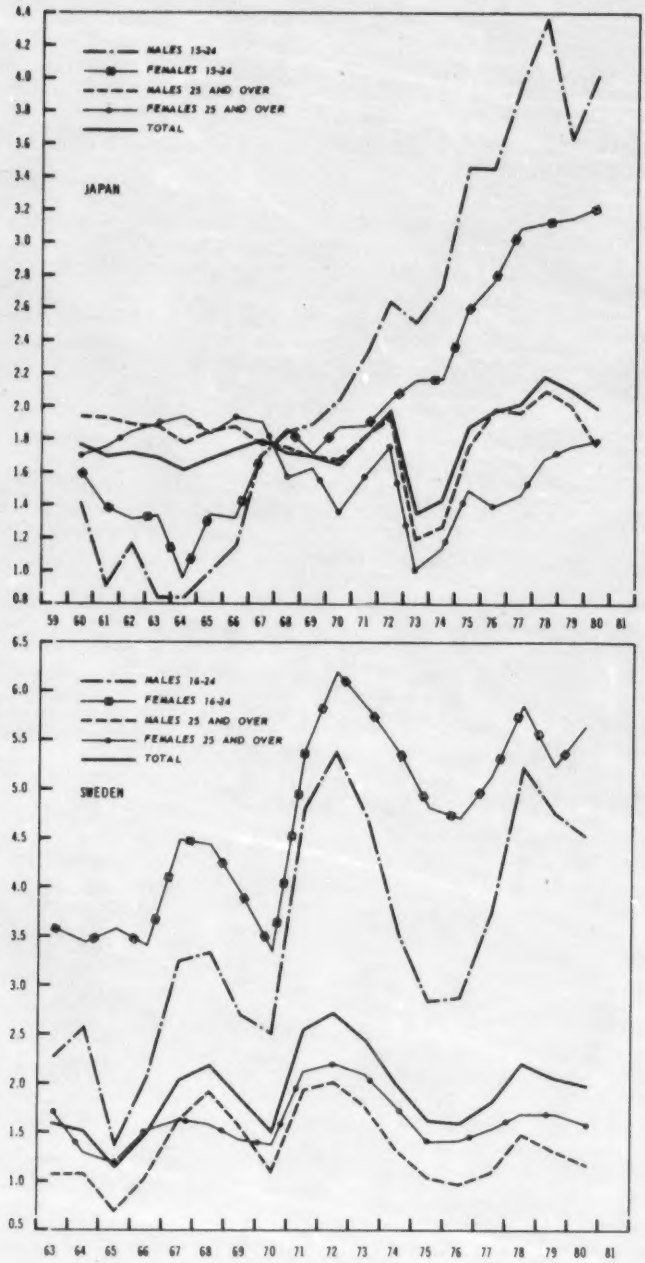


Diagram C (cont'd)



TECHNICAL ANNEX

CHAPTER I

Note A

Table 3: Composition of Costs of Unemployment to the Public Purse

Losses of revenue are not a straightforward function of wage losses and, thus, are difficult to estimate. The figures in Table 3 are calculated assuming that unemployed workers earned average earnings and paid tax and social security contributions at the average rate. Figures for "tax expenditures" on unemployment compensation for the United Kingdom and the United States are taken from *The Government's Expenditure Plans*, 1981-1982 to 1983-1984, Cmnd 8175, HMSO, London, 1981, p. 219 and United States *Annual Abstract of Statistics* respectively.

The simplified hypothesis used for calculating revenue loss estimates has obviously a number of limitations. However, the figures in Table 3 appear fairly comparable with official tax loss estimates available in a few Member countries (e.g. France and the United Kingdom). On the whole, Secretariat estimates seem to under- rather than over-estimate possible revenue losses. The pattern shown in Table 3 should not, then, exaggerate the size of income tax and social security contribution losses but, if anything, underrate the full size of the possible losses.

CHAPTER II

Note B

Regression Model of the Age-Sex Structure of Unemployment Rates

The basic regression equation fitted to the historic data for the ten countries was of the following form[1]:

$$lnUR_{ij} = a_0 + a_1 lnURM25 + a_2 t + a_3 lnPOP_{ij} + \varepsilon \qquad [1]$$

where UR_{ij} = group-specific unemployment rate (i stands for sex and j for age group); URM25 = prime-age male unemployment rate; t = a linear time trend; POP_{ij} = population in the ijth group as a proportion of the total population of working age; and ε = stochastic disturbance term.

The reduced-form specification in equation [1] relates changes in the age-sex structure of unemployment rates to a set of cyclical, trend and demographic factors. The influence of cyclical conditions is obvious and this factor is proxied by the prime-age male unemployment rate. This age group typically has a very high and stable labour force participation rate. Thus, its unemployment rate is virtually independent of cyclical changes in labour force participation unlike the unemployment rates of other groups.

The population size variable was included to control for the effects of changes in the age structure on unemployment rates. In this way it is possible to test for any evidence of the so-called "cohort overcrowding" effect, especially for the young unemployed. This hypothesis rests on the implicit assumption that younger and older workers are imperfect substitutes in production. Thus, an increase in the share of young people in the population of working age is likely to increase youth unemployment especially if relative wages are slow to adjust[2]. Finally, the trend variable was included to control for the effects of slow-moving omitted arguments[3].

For a few countries dummy variables were also introduced into the regression equations to control for the impact of special programmes to combat youth unemployment which were launched in the wake of the 1974-1975 recession[4]. Such controls were included to take account of the Youth Opportunities Programme in the United Kingdom, the National Employment Pacts in France, the Youth Employment Demonstration Projects Act in the United

1. This approach to modelling the demographic composition of unemployment is fairly conventional in the literature. See *Youth Unemployment: The Causes and Consequences*, OECD, Paris, 1980 (footnote 1, p. 46) for references to previous studies.
2. See *Youth Unemployment: The Causes and Consequences*, OECD, Paris, 1980, pp. 46-47 and M. L. Wachter and C. Kim, "Time Series Changes in Youth Joblessness", in R. B. Freeman and D. Wise (eds.), *The Youth Unemployment Problem: Its Nature, Causes and Consequences*, University of Chicago Press, Chicago (forthcoming).
3. Quadratic trends were also included but this latter specification produced no improvements in regression fits except for Germany and the United States.
4. In the case of Italy a zero-one dummy variable was added to the equation to adjust for the significant change to the definitions and classifications of the quarterly labour force survey in 1977.

States, and the post-1976 expansion of the dual training system in Germany. For these countries the equation which was fitted to the data on age- and sex-specific youth unemployment rates was:

$$lnUR_{i,j} = b_0 + b_1 lnURM25 + b_2 t + b_3 lnPOP_{i,j} + b_4 DUM + e \qquad [2]$$

where DUM = a zero-one dummy variable[5].

Finally, equations [1] and [2] were estimated on annual data using ordinary least squares[6]. The time periods were as follows: Australia (1964-1980), Canada (1953-1980), Finland (1964-1980), France (1962-1981), Germany (1965-1980), Italy (1960-1980), Japan (1959-1980), Sweden (1963-1980), United Kingdom (1959-1981), and the United States (1950-1980).

Note C

Table 11: Mean Average Duration of Unemployment in Progress

The figures for the United States and the 1980 figure for Canada were derived directly from national sources. The remaining figures were calculated by the Secretariat on the basis of published national data on the duration of unemployment *in progress*. These calculations should be regarded as very approximate, first since they were performed using grouped data and second since arbitrary assumptions were necessary to arrive at the mean duration for those in the highest duration category. Comparisons between countries should be made with particular caution since the type of source used varies from country to country. The data for France, Germany, the Netherlands and the United Kingdom come from registration sources and are subject to the influence of the varying administrative arrangements in force. This applies particularly to the question of interruptions in spells of unemployment. These may be due to sickness, temporary withdrawal from the labour market or other reasons. In some cases such interruptions, which may be of long duration, are included as unemployment, in others they are excluded, while in still others the duration of unemployment is counted as from the end of the last interruption, even when this interruption is quite short.

CHAPTER III

Note D

Unemployment-Vacancy Relationship

A single regression model was employed in order to assess whether a structural shift of the U-V relationship has occurred over time. The possibility of a structural shift was investigated by adding a dummy variable in the regression model for a certain period.

Regression results

The following notations are used:

V : Vacancies as percentage of total labour force.
U : Unemployed as percentage of total labour force.
D_1: Dummy variable 1972 and on = 1; otherwise 0.
D_2: Dummy variable 1973 and on = 1; otherwise 0.
D_3: Dummy variable 1974 and on = 1; otherwise 0.

1. *Canada*

$$\log V = \underset{(2.24)}{0.464} - \underset{(-4.20)}{0.569} \log U + \underset{(8.14)}{0.592} D_1 \ (1962\text{-}1979)$$

S.E. = 0.101 R = 0.913 D.W. = 1.69

2. *United Kingdom*

$$\log V = \underset{(0.40)}{0.043} - \underset{(-4.16)}{0.576} \log U + \underset{(3.40)}{0.479} D_2 \ (1962\text{-}1979)$$

S.E. = 0.205 R = 0.735 D.W. = 0.85

5. In order to take some account of the varying intensity of these special programmes in France and the United Kingdom, the dummy variables for these countries were graded along a scale in line with the numbers of young people participating in the programmes.

6. Wherever necessary the equations were re-estimated using the Cochrane-Orcutt iterative process in order to adjust for serial correlation of the residuals.

3. *Norway*

$\log V = -1.06 - 1.469 \log U + 1.025 D_1$ (1960-1979)
$(-20.3) \quad (-6.0) \quad (6.0)$
S.E. = 0.175 R = 0.833 D.W. = 1.09

4. *The Netherlands*

$\log V = 0.913 - 0.643 \log U + 0.129 D_2$ (1960-1978)
$(31.8) \quad (-10.6) \quad (1.44)$
S.E. = 0.097 R = 0.972 D.W. = 1.06

5. *Germany*

$\log V = 0.581 - 0.577 \log U + 0.133 D_1$ (1960-1979)
$(14.9) \quad (-8.19) \quad (1.20)$
S.E. = 0.123 R = 0.959 D.W. = 0.651

6. *France*

$\log V = -1.66 - 0.566 \log U + 0.396 D_2$ (1960-1978)
$(-7.41) \quad (1.57) \quad (0.99)$
S.E. = 0.503 R = 0.698 D.W. = 0.550

7. *Finland*

$\log V = -0.694 - 0.685 \log U + 0.966 D_1$ (1961-1979)
$(-4.20) \quad (-3.53) \quad (4.57)$
S.E. = 0.372 R = 0.761 D.W. = 0.481

8. *Belgium*

$\log V = -0.137 - 1.538 \log U + 0.183 D_2$ (1960-1978)
$(-0.45) \quad (-4.22) \quad (0.518)$
S.E. = 0.500 R = 0.810 D.W. = 1.67

9. *Japan*

$\log V = 0.991 - 1.201 \log U + 0.401 D_1$ (1960-1979)
$(15.72) \quad (-6.28) \quad (4.67)$
S.E. = 0.147 R = 0.838 D.W. = 1.697

10. *United States*

$\log V = 1.592 - 0.913 \log U + 0.410 D_1$ (1962-1979)
$(8.01) \quad (-6.90) \quad (6.17)$
S.E. = 0.105 R = 0.881 D.W. = 0.707

11. *Australia*

$\log V = 0.521 - 1.253 \log U + 0.599 D_2$ (1960-1979)
$(10.26) \quad (-17.99) \quad (8.45)$
S.E. = 0.087 R = 0.981 D.W. = 1.813

12. *Sweden*

$\log V = 0.520 - 0.688 \log U + 0.030 D_2$ (1962-1979)
$(4.43) \quad (-3.95) \quad (-0.38)$
S.E. = 0.155 R = 0.512 D.W. = 1.228

Sources for data:

OECD *Main Economic Indicators.*

Note E

Labour Mobility

A simple regression model was employed in order to assess whether the level of voluntary labour mobility has declined over time. The regression results based on the yearly data up to 1973 were then extrapolated to compare the actual with the estimated level of labour mobility.

The results for the regression and the extrapolation are as follows:

Japan

$$Q = 6.95 + 1.81\,(1/U) + 0.33\,SI \quad (1965\text{-}1973)$$
$$\quad\;\; (1.33)\;\; (0.32)\qquad\;\; (1.55)$$

S.E. = 0.884 R = 0.576 D.W. = 2.01

Sweden

$$Q = 49.686 + 30.986\,(1/U) + 3.570\,SI \quad (1963\text{-}1973)$$
$$\quad\;\; (-2.49)\;\; (3.65)\qquad\;\; (2.88)$$

S.E. = 2.84 R = 0.947 D.W. = 3.06

United States

$$Q = -2.52 + 6.96\,(1/U) + 0.163\,Se \quad (1960\text{-}1973)$$
$$\quad\;\; (-7.25)\;\; (7.39)\qquad\;\; (8.71)$$

S.E. = 0.144 R = 0.972 D.W. = 1.744

where

Q: Voluntary separation rate in per cent
Japan - All but service industry
United States - Manufacturing industry
Sweden - Blue-collar workers
U: Unemployment rate in per cent
SI: Share of youth in total labour force in per cent
Se: Share of youth in total employed in per cent.

Sources:

Japan, Ministry of Labour, *Yearbook of Labour Statistics*;
Sweden, Ministry of Economic Affairs, *The 1980 Medium-Term Survey of the Swedish Economy;*
The United States *Manpower Report of the President;*
OECD Labour Force Statistics.

Note F

Table 16: Income Maintenance of the Unemployed.

Information on the weekly or monthly benefits of unemployment insurance beneficiaries and their weekly or monthly earnings when they are employed are important for judgements on the adequacy of unemployment insurance benefits and their potential work disincentive effects.

The ratio between benefits received and earnings when employed is known as the replacement ratio or rate (RR). Most commonly RR has been measured by the ratio of average weekly benefits to average weekly wages. However, surveys of replacement-rate research reveal a broad range of estimated RR. Thus, in the United States RR can be wery high (above 60 per cent) or very low (20 per cent or below)[7]. Much of this variance, though by no means all of it, is due to the different RR concepts used in the various studies.

Conceptual and methodological difficulties are obviously compounded in RR international comparisons. The purpose of these statistics is to compare the manner in which benefits affect people in like circumstances in different countries. The definition of like circumstances is, however, not obvious, partly because unemployment compensation regimes and policies are complex and varied (e.g. different social security and income maintenance policies can be of relevance to unemployed people), partly because different groups of characteristics may be relevant in different countries.

Replacement Rate Concepts

A number of definitions are possible. First, a distinction can be set between:

i) *macro replacement ratios* which are estimates of economy-wide RRs and most appropriate in analyses of the automatic stabilising properties of unemployment insurance programmes[8];

7. W. Vroman, "State Replacement Rates in 1980", *Unemployment Compensation Studies and Research*, National Commission on Unemployment Compensation, United States Printing Office, Washington D.C., 1981, Vol. I.

8. This is equal to the ratio of the sum of all benefits ($\Sigma_i B_i$) received by unemployed workers and the sum of all economic losses ($\Sigma_i L_i$) suffered by them, i.e. RR macro $= \Sigma_i B_i / \Sigma_i L_i$.

ii) *micro replacement ratios* which provide a central tendency measure of the RR distribution and are relevant for discussion about adequacy and work disincentive issues as well as for inter-group and intra-group comparisons[9].

Within this distinction, a number of other (macro or micro) different but related RR concepts can be employed. W. Vroman, in a comprehensive study for the United States National Commission on Unemployment Compensation, has identified the following concepts:

a) *gross statutory RR*, i.e. benefits as determined by unemployment compensation norms as a percentage of base-period earnings;
b) *gross narrow RR*, i.e. the ratio between weekly benefits to average weekly wages;
c) *net narrow RR*, as *b)* above but adjusted for income tax and social security contribution payments, loss of non-wage labour compensation and savings on work-related expenditure made by unemployed workers;
d) *gross broad RR*, i.e. the ratio between benefits received and the gross wage loss. Unlike *b)* above, this ratio reflects the fraction of time the unemployed person does not collect benefits, e.g. because of the waiting period, payment lags, etc.;
e) *net broad RR* as *d)* above but with the adjustments mentioned under *c)*;
f) *gross total transfer RR* which measures the part of total wage loss replaced by all income transfer payments (public and private), combined. Unemployment benefits in various countries constitute only one of a number of payments jobless workers can receive [for instance, unemployed persons can qualify for food stamps and Assistance to Families with Dependent Children (AFDC), in the United States; and for supplementary benefit and rates and rent rebates in the United Kingdom]. This ratio catches the effects of programme overlapping making it possible to examine tax/benefit system interactions;
g) *net total transfer replacement ratio*, as above, but adjusted as under *c)*.

In general, RR gross statutory is greater than or equal to RR gross narrow which in turn is greater than RR gross broad. Equally, RR net narrow is greater than RR net broad. Also, net RRs are typically greater than gross RRs and total transfer RRs, gross or net, tend to show the highest values of all RRs[10].

In the United States, 1980 macro and micro estimates for various RR definitions prepared for the National Commission on Unemployment Compensation have yielded the results shown in the following tables:

Estimated Macro and Micro Replacement Rates, United States, 1980

A. Macro RR

	Experienced unemployed workers	State UI beneficiaries	Non-beneficiaries of State UI
Gross narrow	—	0.332	—
Gross broad	0.171	0.269	—
Net narrow	—	0.346	—
Net broad	0.177	0.280	—
Gross total	0.194	0.290	0.027
Net total	0.201	0.302	0.028

B. Micro RR

	Gross narrow	Gross broad	Net narrow	Net broad
Mean	0.408	0.347	0.457	0.391
Standard deviation	0.151	0.156	0.224	0.216
Coefficient of variation	0.370	0.450	0.490	0.552

Source: W. Vroman, "State Replacement Rates in 1980", *op. cit.*, pp. 174 and 176.

9. This is equal to the average of individual replacement ratios (rm_i). If B_i is the benefit paid to the ith unemployed worker, and L_i are his losses then:

$$\text{RR micro} = \frac{1}{n} rm_i = \frac{1}{n} \sum_i \frac{B_i}{L_i}$$

10. The inequality between RR gross narrow and RR gross broad is mainly a function of the time during which jobless workers collect benefits—the gap between the two measures tending to widen the shorter the duration of spells is. The relationship between gross and net RRs is explained by the importance of taxes; the generally higher values of total transfer RRs by that of income transfer programmes. For a more detailed discussion of these relationships, see W. Vroman, *op. cit.*, pp. 169-170.

Compared to RR estimates from 0.60 to 0.70 suggested by earlier research, notably by M. Feldstein[11], the figures above show much lower replacement ratios. The explanation for this is that the *net wage loss* used in previous RR studies provides an under-estimate of the *net loss* which also includes work expenses, fringe benefit losses and money wage growth[12]. The use of net wage loss has, therefore, the effect of over-estimating RR ratios.

Replacement Ratios Variance

Another interesting feature of the information displayed in the preceding table is the suggested wide variability in individual RR experiences. This variance has a number of implications. First, the greater it is the larger can be differences between macro and micro RR. Secondly, the usefulness of measures of central tendency, such as RR, is negatively correlated with dispersion in the underlying distribution. The wider the dispersion of the RR distribution, the less representative are mean or average RR values of the diverse experiences of workers under unemployment compensation programmes. The above table suggests a variability between 0.37 and 0.55 amongst United States unemployed workers. Comparable statistics are not available in other Member countries, but similar information for the United Kingdom[13], France[14] and Canada[15] suggest also a wide dispersion in jobless persons' experiences. The sources of this variability are manifold and vary in different Member countries. Thus, in the United States, inter-State differences are marked. In the United Kingdom an important source of variability is eligibility for supplementary and other related benefits and for the earnings-related supplement. In France programme eligibility and age are main causes of variability. Other factors which affect RR variance include differences in eligibility provisions under public and private schemes, employment history, weekly wage, tax treatment of benefits, duration of unemployment and numbers of dependents.

Internationally Comparable Replacement Ratios

The 1979 OECD study on *Unemployment Compensation and Related Employment Policy Measures* presented gross and net RR for six OECD Member countries at the average earnings level for:

i) a single person and
ii) a married couple with two dependent children with wife not in paid employment.

More recently, the Commission of the European Communities has produced similar figures for its 10 member countries.

The earlier OECD work has been extended in this report on three important dimensions. First, different earnings levels are considered: average, two-thirds average, and twice average earnings. Second, different durations of unemployment are examined: three months and six months. Third, the importance of fiscal factors (i.e. changes in income tax and social security contributions) as well as of unemployment and other related income-maintenance programmes is separately examined.

The basic data and methodology employed—only modified to take into account spells of unemployment—are those developed by the Committee of Fiscal Affairs of the OECD to derive:

> "reasonably comparable data for OECD countries to illustrate the impact of payments of direct taxes and social security contributions and receipt of certain cash transfers upon the disposable income of typical family units at different income levels."[16]

The statistics in this study thus present the same advantages and disadvantages as those of the "average production worker" (APW) who experiences no unemployment. To the extent, however, that certain means-tested and discretionary benefits available to the unemployed cannot be introduced in the calculations in any satisfactory way (for instance, rates and rent rebates), an additional limitation is introduced in the data. This kind of limitation is, however, inherent in all existing calculations and can only be overcome through extending the scope of this study to cover the whole spectrum of social policies implemented in Member countries.

11. M. Feldstein, "Unemployment Compensation: Adverse Incentives and Distributional Anomalies", *National Tax Journal*, June 1974, pp. 231-244.
12. The latter is especially important for workers whose age-earnings profiles slope upward very steeply, e.g. youth. High inflation also affects it.
13. M. Clark, "The Unemployed on Supplementary Benefit", *Journal of Social Policy*, October 1978.
14. See *Liaisons Sociales*, No. 8589, 30 September 1981, p. 7.
15. See *Taxation Statistics*, 1974-1977 Editions, Table 2, Revenue Canada, Taxation.
16. The first two reports in the series focused on the tax/benefit position of the average production worker (APW) during 1972 and 1972-1974 respectively, single, married without children, married with one child and married with two children—see Annex I to the 1975 and 1977 editions of *Revenue Statistics of OECD Member Countries*. The latest report, which referred to the years 1972-1976, took into account other income levels and cases where the spouse of the worker was gainfully employed—see *The Tax/Benefit Position of Selected Income Groups 1972-1976*, OECD, Paris, 1978. The position of the APW in 1977 can be found in "Special Feature No. 2" of the *Revenue Statistics of OECD Member countries 1965-1976*, OECD, Paris, 1978. 1978 data are published in *The 1978 Tax/Benefit Position of A Typical Worker in OECD Member Countries*, OECD, Paris, 1979.

With these limitations in mind, the calculations aim at comparing annual *ex post* net earnings profiles[17] and how these may be modified by unemployment. This will permit identification of the net income loss due to unemployment taking into account the interplay between tax/benefit schemes. Reference to *ex post* net earnings profiles allows a number of problems to be overcome, e.g. existence of waiting periods; the possible non-taxation at source of unemployment benefits; the concentration of tax refunds in a given week or month of the year; and delayed payment of benefits. However, it does not help to solve the problems relating to fringe benefits, money wage growth and work expenses.

The following assumptions are made to calculate "typical" unemployment insurance coverage:

a) The period referred to is the same as that used in the Committee of Fiscal Affairs work.
b) The spell of unemployment occurs during the last three months (e.g. during the last quarter) or half way through the fiscal year (e.g. during the third and fourth quarters of the fiscal year).
c) The worker remains unemployed for the rest of the tax year.
d) The worker and the other family members have no other source of income.
e) The worker has full eligibility to unemployment benefit.

The calculation of the ratios in Table 16 is based on the following steps:

1. Gross income for tax purposes (i.e. gross average earnings plus unemployment compensation money if applicable).
2. Income tax allowances.
3. Tax credits or cash transfers included in taxable income.
4. Taxable income (1 − 2 + 3).
5. Income tax liability.
6. Tax credits.
7. Income tax finally paid (5 − 6).
8. Employee's social security contributions.
9. Additional income tax paid to political subdivisions.
10. Taxable payments by employee to government (7 + 8 + 9).
11. Cash transfers from government.
12. Disposable resources (1 − 10 + 11).

Calling Y_g = gross earnings
IT = income tax
SSC = social security contributions
CT = any cash transfer from government not included in earnings
DY = disposable income

for the APW with no unemployment experience

UY'_g = gross earnings
UIT^i = income tax
$USSC^i$ = social security contributions
UB^i = unemployment benefits
UCT^i = any cash transfer from government not included in earnings on UB
UDY^i = disposable income
where *i* can be equal to 3 or 6.

for the APW suffering 3 or 6 months unemployment

The ratios in Table 16 are equal to:

$$RR = \frac{UDY^i}{DY} = \frac{UY^i - UIT^i - USSC^i + UB + UCT^i}{Y_g - IT - SSC + CT}$$

17. The annual cash flow position of a worker may differ from his *ex post* position because the timing of the receipt of benefits and the payment of taxes will vary over the year and as between years. The study is intended to examine the *ex post* position of a worker in employment who becomes unemployed for a certain period.

CHAPTER IV

Note G

Table 20: Components of Change of the Population of Working Age (15-64), "Big Seven" Countries.

The relationship between the entries in the columns is as follows: Total percentage change = contribution of inflows − contribution of outflows − residual factor.

The components of change were calculated as follows:

from Year 0 to Year 1,
total percentage change = $[P_1(15\text{-}64) - P_0(15\text{-}64)]/P_0(15\text{-}64)$
contribution of inflows = $P_1(15\text{-}19)/P_0(15\text{-}64)$
contribution of outflows = $P_0(60\text{-}64)/P_0(15\text{-}64)$
residual factor = $[P_0(15\text{-}59) - P_1(20\text{-}64)]/P_0(15\text{-}64)$
where $P_0(15\text{-}64)$ stands for the population at Year 0 between the ages of 15-64, etc.

The residual factor is due to

i) deaths in the age group 15-19 during the 5 years period covered;
ii) migration.

OECD SALES AGENTS
DÉPOSITAIRES DES PUBLICATIONS DE L'OCDE

ARGENTINA – ARGENTINE
Carlos Hirsch S.R.L., Florida 165, 4° Piso (Galeria Guemes)
1333 BUENOS AIRES. Tel. 33.1787.2391 y 30.7122
AUSTRALIA – AUSTRALIE
Australia and New Zealand Book Company Pty. Ltd.,
10 Aquatic Drive, Frenchs Forest, N.S.W. 2086
P.O. Box 459, BROOKVALE, N.S.W. 2100
AUSTRIA – AUTRICHE
OECD Publications and Information Center
4 Simrockstrasse 5300 BONN. Tel. (0228) 21.60.45
Local Agent/Agent local :
Gerold and Co., Graben 31, WIEN 1. Tel. 52.22.35
BELGIUM – BELGIQUE
LCLS
35, avenue de Stalingrad, 1000 BRUXELLES. Tel. 02.512.89.74
BRAZIL – BRÉSIL
Mestre Jou S.A., Rua Guaipa 518,
Caixa Postal 24090, 05089 SAO PAULO 10. Tel. 261.1920
Rua Senador Dantas 19 s/205-6, RIO DE JANEIRO GB.
Tel. 232.07.32
CANADA
Renouf Publishing Company Limited,
2182 St. Catherine Street West,
MONTRÉAL, Que. H3H 1M7. Tel. (514)937.3519
OTTAWA, Ont. K1P 5A6, 61 Sparks Street
DENMARK – DANEMARK
Munksgaard Export and Subscription Service
35, Nørre Søgade
DK 1370 KØBENHAVN K. Tel. +45.1.12.85.70
FINLAND – FINLANDE
Akateeminen Kirjakauppa
Keskuskatu 1, 00100 HELSINKI 10. Tel. 65.11.22
FRANCE
Bureau des Publications de l'OCDE,
2 rue André-Pascal, 75775 PARIS CEDEX 16. Tel. (1) 524.81.67
Principal correspondant :
13602 AIX-EN-PROVENCE : Librairie de l'Université.
Tel. 26.18.08
GERMANY – ALLEMAGNE
OECD Publications and Information Center
4 Simrockstrasse 5300 BONN Tel. (0228) 21.60.45
GREECE – GRÈCE
Librairie Kauffmann, 28 rue du Stade,
ATHÈNES 132. Tel. 322.21.60
HONG-KONG
Government Information Services,
Publications/Sales Section, Baskerville House,
2/F., 22 Ice House Street
ICELAND – ISLANDE
Snaebjörn Jónsson and Co., h.f.,
Hafnarstraeti 4 and 9, P.O.B. 1131, REYKJAVIK.
Tel. 13133/14281/11936
INDIA – INDE
Oxford Book and Stationery Co. :
NEW DELHI-1, Scindia House. Tel. 45896
CALCUTTA 700016, 17 Park Street. Tel. 240832
INDONESIA – INDONÉSIE
PDIN-LIPI, P.O. Box 3065/JKT., JAKARTA, Tel. 583467
IRELAND – IRLANDE
TDC Publishers – Library Suppliers
12 North Frederick Street, DUBLIN 1 Tel. 744835-749677
ITALY – ITALIE
Libreria Commissionaria Sansoni :
Via Lamarmora 45, 50121 FIRENZE. Tel. 579751
Via Bartolini 29, 20155 MILANO. Tel. 365083
Sub-depositari :
Editrice e Libreria Herder,
Piazza Montecitorio 120, 00 186 ROMA. Tel. 6794628
Libreria Hoepli, Via Hoepli 5, 20121 MILANO. Tel. 865446
Libreria Lattes, Via Garibaldi 3, 10122 TORINO. Tel. 519274
La diffusione delle edizioni OCSE è inoltre assicurata dalle migliori librerie nelle città più importanti.
JAPAN – JAPON
OECD Publications and Information Center,
Landic Akasaka Bldg., 2-3-4 Akasaka,
Minato-ku, TOKYO 107 Tel. 586.2016
KOREA – CORÉE
Pan Korea Book Corporation,
P.O. Box n° 101 Kwangwhamun, SÉOUL. Tel. 72.7369
LEBANON – LIBAN
Documenta Scientifica/Redico,
Edison Building, Bliss Street, P.O. Box 5641, BEIRUT.
Tel. 354429 – 344425
MALAYSIA – MALAISIE
and/et **SINGAPORE – SINGAPOUR**
University of Malaysia Co-operative Bookshop Ltd.
P.O. Box 1127, Jalan Pantai Baru
KUALA LUMPUR. Tel. 51425, 54058, 54361
THE NETHERLANDS – PAYS-BAS
Staatsuitgeverij
Verzendboekhandel Chr. Plantijnstraat 1
Postbus 20014
2500 EA S-GRAVENAGE. Tel. nr. 070.789911
Voor bestellingen: Tel. 070.789208
NEW ZEALAND – NOUVELLE-ZÉLANDE
Publications Section,
Government Printing Office Bookshops
AUCKLAND: Retail Bookshop: 25 Rutland Street,
Mail Orders: 85 Beach Road, Private Bag C.P.O.
HAMILTON: Retail Ward Street,
Mail Orders, P.O. Box 857
WELLINGTON: Retail: Mulgrave Street (Head Office),
Cubacade World Trade Centre
Mail Orders: Private Bag
CHRISTCHURCH: Retail: 159 Hereford Street,
Mail Orders: Private Bag
DUNEDIN: Retail: Princes Street
Mail Order: P.O. Box 1104
NORWAY – NORVÈGE
J.G. TANUM A/S Karl Johansgate 43
P.O. Box 1177 Sentrum OSLO 1. Tel. (02) 80.12.60
PAKISTAN
Mirza Book Agency, 65 Shahrah Quaid-E-Azam, LAHORE 3.
Tel. 66839
PHILIPPINES
National Book Store, Inc.
Library Services Division, P.O. Box 1934, MANILA.
Tel. Nos. 49.43.06 to 09, 40.53.45, 49.45.12
PORTUGAL
Livraria Portugal, Rua do Carmo 70-74,
1117 LISBOA CODEX. Tel. 360582/3
SPAIN – ESPAGNE
Mundi-Prensa Libros, S.A.
Castelló 37, Apartado 1223, MADRID-1. Tel. 275.46.55
Libreria Bosch, Ronda Universidad 11, BARCELONA 7.
Tel. 317.53.08, 317.53.58
SWEDEN – SUÈDE
AB CE Fritzes Kongl Hovbokhandel,
Box 16 356, S 103 27 STH, Regeringsgatan 12,
DS STOCKHOLM. Tel. 08/23 89 00
SWITZERLAND – SUISSE
OECD Publications and Information Center
4 Simrockstrasse 5300 BONN. Tel. (0228) 21.60.45
Local Agents/Agents locaux
Librairie Payot, 6 rue Grenus, 1211 GENÈVE 11. Tel. 022.31.89.50
Freidrich A.G., Weinbergstr. 109, CH-8006 ZÜRICH.
Tel. 01.363420?
TAIWAN
Good Faith Worldwide Int'l Co., Ltd.
9th floor, No. 118, Sec. 2
Chung Hsiao E. Road
TAIPEI. Tel. 391.7396/391.7397
THAILAND – THAILANDE
Suksit Siam Co., Ltd., 1715 Rama IV Rd,
Samyan, BANGKOK 5. Tel. 2511630
TURKEY – TURQUIE
Kültur Yayinlari Is-Türk Ltd. Sti.
Atatürk Bulvari No : 77/B
KIZILAY/ANKARA. Tel. 17 02 66
Dolmabahce Cad. No : 29
BESIKTAS/ISTANBUL. Tel. 60 71 88
UNITED KINGDOM – ROYAUME-UNI
H.M. Stationery Office, P.O.B. 569,
LONDON SE1 9NH. Tel. 01.928.6977, Ext. 410 or
49 High Holborn, LONDON WC1V 6 HB (personal callers)
Branches at: EDINBURGH, BIRMINGHAM, BRISTOL,
MANCHESTER, CARDIFF, BELFAST.
UNITED STATES OF AMERICA – ÉTATS-UNIS
OECD Publications and Information Center, Suite 1207,
1750 Pennsylvania Ave., N.W. WASHINGTON, D.C.20006 – 4582
Tel. (202) 724.1857
VENEZUELA
Libreria del Este, Avda. F. Miranda 52, Edificio Galipan,
CARACAS 106. Tel. 32.23.01/33.26.04/33.24.73
YUGOSLAVIA – YOUGOSLAVIE
Jugoslovenska Knjiga, Terazije 27, P.O.B. 36, BEOGRAD.
Tel. 621.992

Les commandes provenant de pays où l'OCDE n'a pas encore désigné de dépositaire peuvent être adressées à :
OCDE, Bureau des Publications, 2, rue André-Pascal, 75775 PARIS CEDEX 16.

Orders and inquiries from countries where sales agents have not yet been appointed may be sent to:
OECD, Publications Office, 2 rue André-Pascal, 75775 PARIS CEDEX 16.

OECD PUBLICATIONS, 2, rue André-Pascal, 75775 PARIS CEDEX 16 - N° 42206 1982
PRINTED IN FRANCE
(81 82 04 1) ISBN 92-64-12332-6

IN MOST OECD COUNTRIES UNEMPLOYMENT WAS ALREADY ALARMINGLY HIGH IN THE LATER 1970s AND HAS SINCE CONTINUED TO RISE. WHICH GROUPS ARE MOST AFFECTED? IS THE LABOUR MARKET FUNCTIONING EFFICIENTLY? WHAT ARE THE PROSPECTS? WHAT CAN POLICYMAKERS DO? THIS REPORT DOCUMENTS SIGNIFICANT TRENDS AND FEATURES IN LABOUR MARKETS AND PROVIDES AN ANALYSIS OF POLICY RESPONSES THAT HAVE BEEN, OR MAY BE, PUT INTO PLACE.

(81 82 04 1) ISBN 92-64-12332-6

F 76/1700